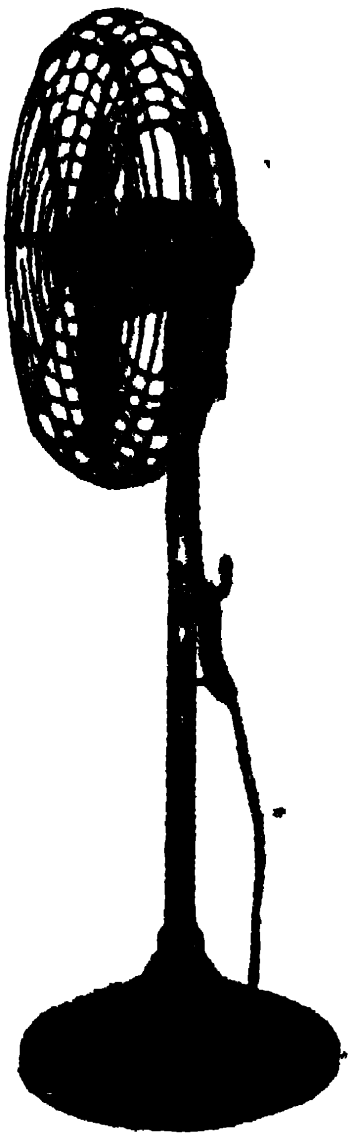
1959
HINDUSTAN YEAR-BOOK

S.C. SARKAR

27th year of issue

INSIST ON

CALCUTTA
FAN

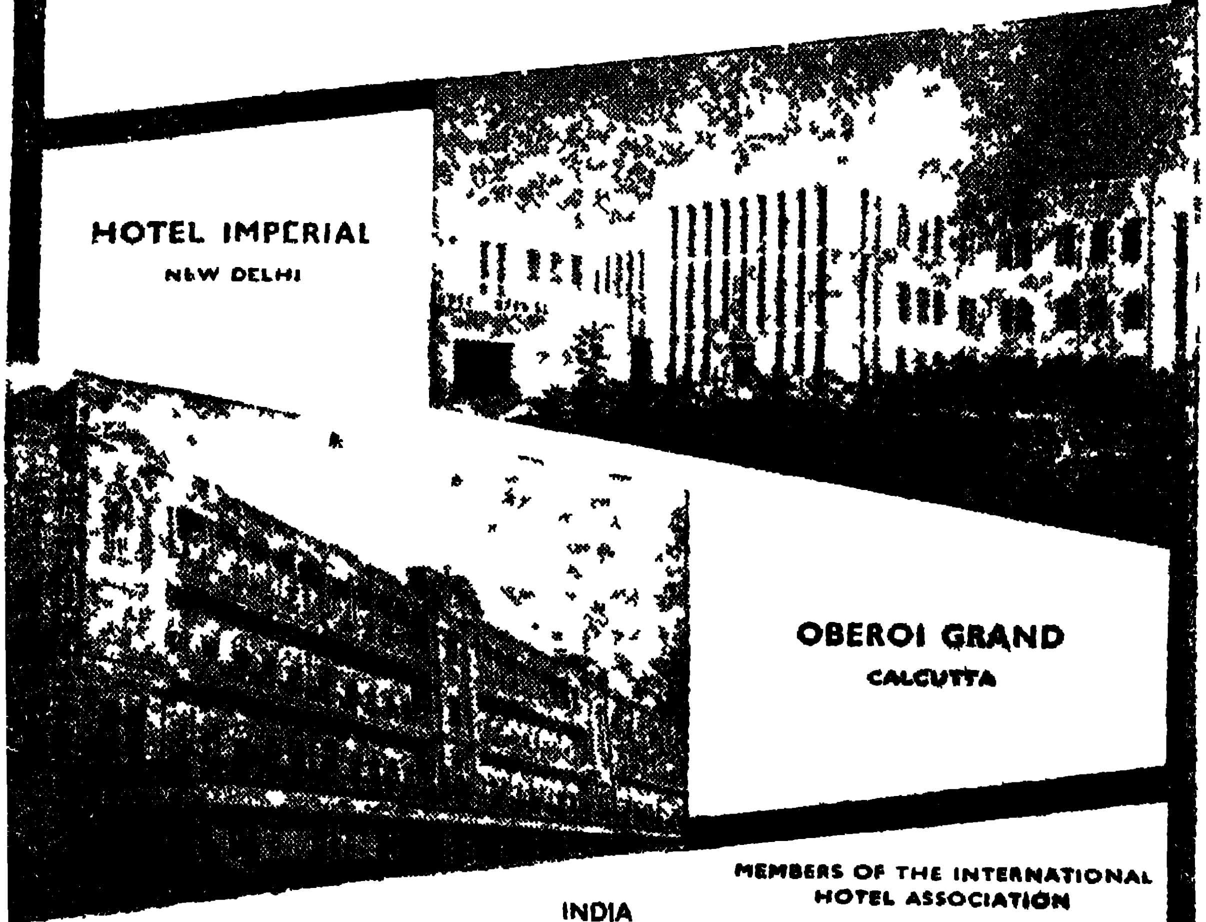


CALCUTTA FAN WORKS PRIVATE LTD.

LESLIE HOUSE
19B, CHOWRINGHEE ROAD
CALCUTTA-13
Telephone : 23-3552 & 23-1317

The largest Chain of leading hotels in the East

STAY AT an OBEROI HOTEL and enjoy OBEROI DeLuxe facilities for good living. personalized 24 hour service, international cuisine, air-conditioning entertainment!



HOTEL IMPERIAL
NEW DELHI

OBEROI GRAND
CALCUTTA

MEMBERS OF THE INTERNATIONAL HOTEL ASSOCIATION

INDIA

Oberoi Maidens, Delhi	Oberoi Mt Everest Darjeeling
Oberoi Swiss Delhi	Oberoi Palm Beach, Gopalpur on-sea
Oberoi Cecil Simla	Oberoi Mt View Chandigarh
Oberoi Clarkes Simla	Oberoi Palace Srinagar

PAKISTAN

Oberoi Flashmans Rawalpindi	Oberoi Falettis Lahore
Oberoi Deans Peshawar	Oberoi Cecil Murree

Oberoi Hotels

HOME OF INTERNATIONAL TRAVELLER

if it is malaria

is the surest antidote

Quinine is a safe and dependable remedy.

Taken orally it is rapidly absorbed in the blood stream and quick action is ensured

Injection of Quinine is still relied upon by Doctors for treatment of severe cases of Malignant Malaria

Quinine rarely produces resistance in Malaria parasites

Quinine manufactured at the West Bengal Government Quinine Factory is of the Highest Purity

Available from Govt. Quinine Sale Depot, Old Hindusthan Buildings, Cal-13 Dev's Medical Stores Private Ltd., 6/2B, Lindsay Street, Cal-16 and from all leading chemists and druggists.

QF-Bo 57

HINDUSTAN YEAR-BOOK

AND

WHO'S WHO

1959

By

S. C. SARKAR

Author of Book of General Knowledge, Notable Indian Trials, Constitution of India etc.

27th year of Issue

M. C. SARKAR & SONS PRIVATE LTD.
14, BANKIM CHATTERJEE STREET
CALCUTTA

Paper Cover Rs. 5.00
Cloth Cover Rs. 6.00

Printed by Supriya Sarkar at Imperial Art Cottage, Calcutta-6 and Published by the same of the M. C. Sarkar & Sons Private, Limited at 14, Bankim Chatterjee Street, Calcutta-12.

FOREWORD

This edition of the Hindustan Year Book is the 27th since its publication began in 1933. It has been our constant endeavour to include major new features every year and this has been done this year also. Exhaustive revisions and additions have been made in almost all the basic features of the book. Every year we try to produce a better book providing greater usefulness.

The editor acknowledges with thanks many letters of useful comment of criticism and invites suggestions for improvement of its services to readers.

Calcutta
1959

S. C. SARKAR

Every drop purifies your blood !

It is blood which carries nourishment to all the tiny cells which make up the body and the brain and thus sustains life itself Think of the dangers you face when this blood becomes impure Often, Itching, Scabies, Ulcers, Eczema, Boils, Rashes, Gout and many other complicated diseases beset upon you and make your life miserable

'SARIBADI SALSA is reputed for decades as the world's best blood purifier. It clears the bowels regularly, cures all skin and other diseases arising out of blood impurities, tones up the liver, increases the appetite and thus helps formation of new, rich blood which ensures a sturdy health for you.

SARIBADI SALSA

the best blood purifier

Adhyaksha — Dr Jogesh Chandra Ghose, M A, Ayurved Sastri F. C S (London), M C S (America), formerly Professor of Chemistry, Bhagalpur College

Calcutta Centre — Dr Naresh Chandra Ghose, M. B B. S. (Cal). Ayurved-Acharya, 36, Goalpara Road, Calcutta-37.

SADHANA AUSADHALAYA DACCA The world's largest Ayurvedic Institution

CONTENTS

INDIA AT A GLANCE

Area—Physical Division—Climate & Rainfall—Soil of India—Languages—River Systems—Ports—People—Religion—Indian Races—Minerals—Agriculture—Animals—Fisheries—Livestock—Forests .. .. 1—9

INDIAN FACTS IN A NUTSHELL

General—Population—Agriculture—Minerals—Trade & Industries—Public Health & Hygiene .. .. 10—13

INDIAN INFORMATION

States & Territories of India—Cities of India—Hill Stations—Indian Bridges—National Parks and Game Sanctuaries—Ten Highest Peaks of Himalayas—Attempts on Everest—Attempts on Kanchenjunga—Conquest of Himalayan Peaks—Highest Indian Structures—Old & New Names of Places—Indian Fellows of Royal Society—Indians in Br. Parliament—Indian Privy Councillors—Indian Peers of Br. Realm—Indian Member of U.S. Congress—Nobel Prize Winners—Lenin Peace Prize—Bharat Ratna—Padma Vibhushan—Winners of Param Vir Chakra—Governor Generals of Indian Union—President of India—Vice-President of India—Indian Parliament—Military Chiefs of India—Indian National Congress Presidents—Indian Chronology—Notable Indians—First in India—First beginnings in India—First among Indians—Hills Stations—Places of Interest—Architectural & Historical Landmarks .. .. 14—38

DIPTI LANTERNS

for

MILLION HOMES

A Product of

The Oriental Metal Industries Private Ltd.

77, BOWBAZAR STREET,

CALCUTTA-12

ORCL'S

QUMARESH

for liver & stomach

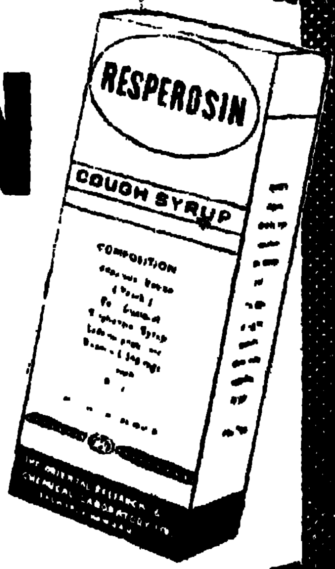
Regular use of Qumaresh keeps your Liver fit, and protects you from ailments like indigestion, flatulence, loss of appetite, want of energy, fatigue etc.

ORCL'S

RESPEROSIN

for cough & cold

A palatable cough syrup, which aims at the disease itself and not merely the symptoms.



THE ORIENTAL RESEARCH & CHEMICAL LABORATORY LTD.
SALKIA, HOWRAH : QUMARESH HOUSE

THE CALENDAR

Indian Calendar—Mahomedan Calendar—Modern Calendar—Jewish Calendar—Zoroastrian Calendar—Buddhist Calendar—Hindu Calendar—Names of Months—Year—Time—Holidays .. .. 38—47

ASTRONOMICAL DATA

Solar System—Sun—Earth—Moon—Other Planets—Asteroids—Comets—Meteors—Constellations—Satellites—Stars—Polar Auroras—Milky Way—Atmosphere 47—51

GEOGRAPHICAL INFORMATION

Area of the Continents—Famous Rivers—Oceans & Seas—Highest Mt. Peaks—Lakes—Volcanoes—Large Islands—Famous Deserts—Geo. Surnames—Famous Tunnels—Mt. Passes—Famous Caves & Caverns—Famous Ship Canals—Geo. Record-Breakers—World Extremes of Climate—Famous Highest Dams—Largest Dams—Ship Canals—Geographical Record-breakers—World Extremes of Climate—Waterfalls—Five Biggest Cities—Polar Records—First Ascents of Mountains .. .. 52—59

GENERAL INFORMATION

Largest Ry Station Platforms—Longest Bridges—Notable Telescopes—Largest Bells Tall Buildings and Towers—World's Longest Spans by Types of Bridges—Biggest, Largest, Greatest, Longest—Great Inventions—Discoveries in Medicine & Physiology—Theories—Nobel Prizes—Kalinga Prize—Indian Stones & Planetary action—Birth Stones—Animal & Bird Records—Period of Gestation—Speeds—Heights & Depths—Largest Ships—Largest Tankers—Atlantic Blue Riband—Record Flights & Jumps—Decoration and Medals—National & State Flowers . .. 59—76

---

for
quality
blocks
and
printing

REPRODUCTION SYNDICATE

REPRODUCTION SYNDICATE

gives life to your design

7/1 CORNWALLIS STREET, CALCUTTA-6

Manufactured under rigid Control & direct supervision

of our expert and well-trained chemists in our laboratories well-equipped with latest scientific and research appliances, all our products are of standard and dependable quality,

our main lines of manufacture -

PHARMACEUTICALS B P & B. P. C., Drugs & galenicals, Medicinal Specialities, Injectables.

CHEMICALS Heavy, Fine and Technical.

LABORATORY REAGENTS

SOAPS & TOILETS Viz. Margo Soap, Neem Tooth Paste etc.

ESSENTIAL OILS & AROMATIC CHEMICALS

DISINFECTANTS & ANTISEPTICS

★ A Leader in Research & Production in India.

★ Serving Humanity for the last 42 years.

THE CALCUTTA CHEMICAL CO. LTD.

CALCUTTA-29.

WORLD GAZETTEER

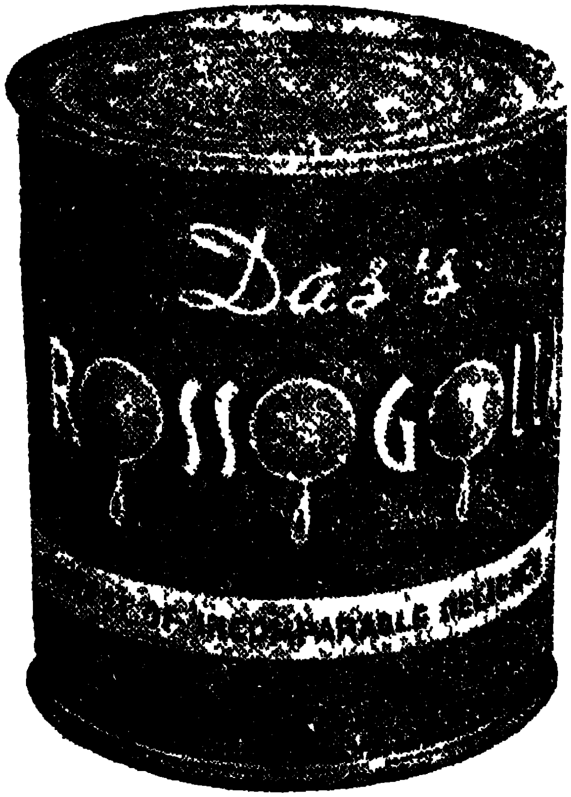
A Brief Guide to the Countries of the World . .. .. 77—98

POLITICAL INFORMATION

Rulers or Heads of the World—Presidents of the U S—British Prime Ministers—Salaries of Heads of Governments Rulers of France—Rulers of Germany—Rulers of U S S R—Rulers of Gt Britain—Political Assassinations—Famous Abdications—Flags of Countries—Other Flags National Days Political Abbreviations—Names & Colours of Flags National Anthems—International Organisations—Communist Countries Political Parties & Groups—Indian Political Parties—Political Terms—Plans, Alliances Charters, Etc .. 99—132

CONSTITUTION OF INDIA

Sovereign Democratic Republic Fundamental Rights—Directive Principles—Union Executive—Legislature Judiciary—State Governments Election Commission—Financial & other Provisions—Trade and Commerce—Official Language Amendments of the Constitution—Schedule . 132—143



DAS'S
RENOWNED
ROSSOGOLLA

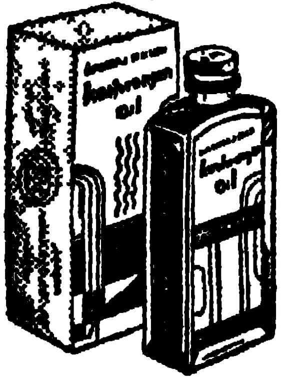
in vaccum tins is a most welcome gift as all the delicate taste and flavour of it remain unchanged for months

K. C. Das, Private Ltd.

THE FAMOUS CONFECTIONERS OF CALCUTTA

Keshranjan does enrich the hair... it refreshes the mind too!

that is why **we all like Keshranjan...**



The exceptional hair oil

Kaviraj N N. Sen & Co. Private Ltd. Calcutta

INDIAN CITIZENSHIP

Indian Citizenship Act—By Birth—By Descent—By Registration—By Nationalisation—By incorporation of territory—Termination of Citizenship . . 143—145

OUR NATIONAL EMBLEMS AND AWARDS

National Flag—National Emblem—National Songs—Awards, Distinctions and Titles .. .. 145—149

RANK AND PRECEDENCE OF PERSONS

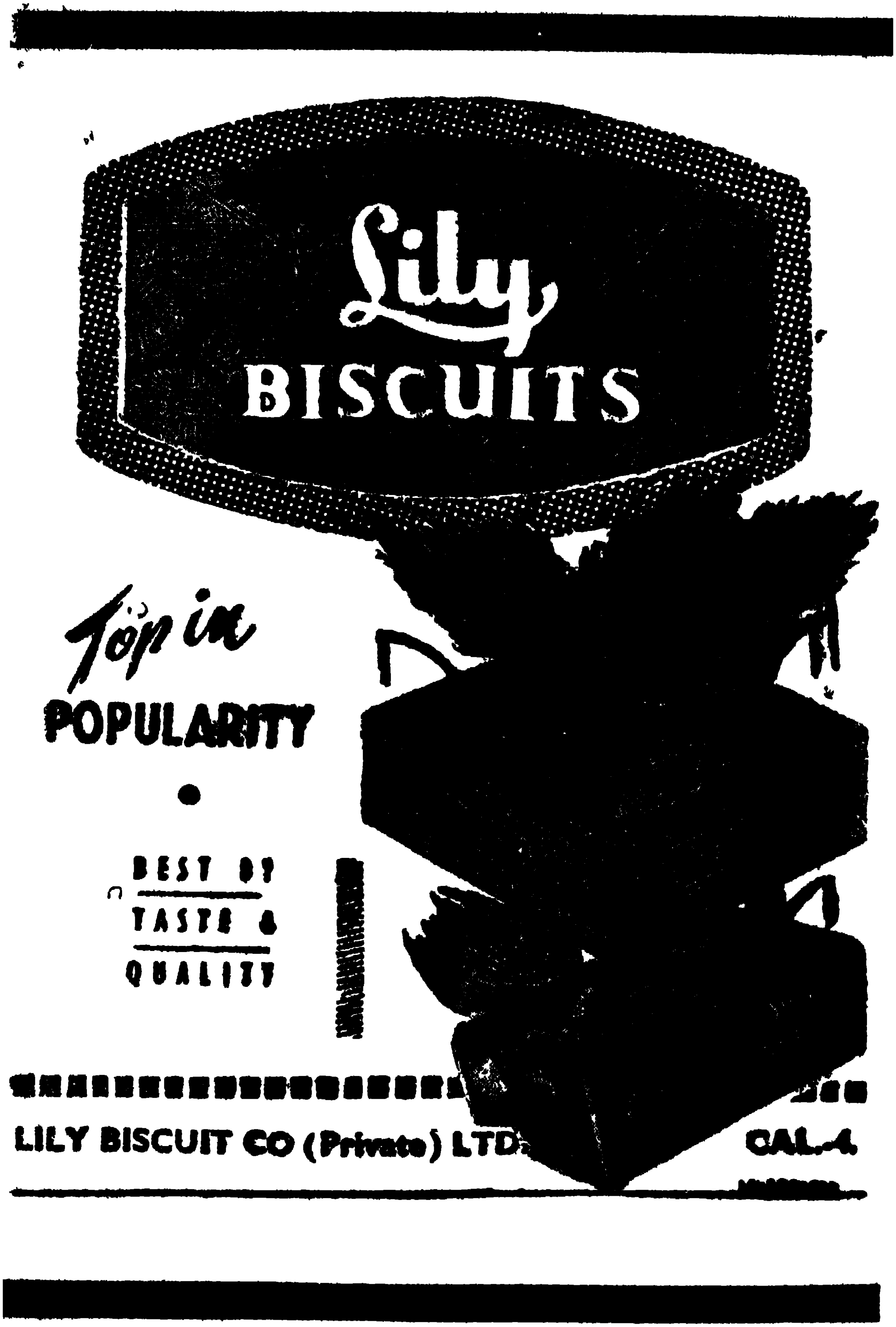
149—151

Sole Distributors:

M/s. IMPERIAL WATCH CO.

184, RADHABAZAR STREET, CALCUTTA-1

Phone: 22-6036



Lily
BISCUITS

Top in
POPULARITY

BEST BY
TASTE &
QUALITY

LILY BISCUIT CO (Private) LTD. CAL.-4.

TRANSPORT AND COMMUNICATIONS

Railways—Transport and Communications—Railways in India—Beginning of Railways in India—Co ordination of Transport Services Railway Committees Administration of Railways—Divisional System—Railway Finance—Fare and freight—Railway Locomotive and other productions Training Centres and Research—Electrification of Railways Gauges of Rail—Railway zones—some railway organisations—Railway Amenities—Non Government Railways Railway Traffic—Railway Finance—Mileage of Indian Railways—Railway Facts—*Roads in India*—Problem of Roads in India Short History of Road Progress Road Administration—Central Road Fund Nagpur Plan Indian Roads Congress—Government organisations—Research and Technical Activities and Training Road Mileage in various countries—Indian Union's Road Development Plan *Road Transports* Inter State Transport Commission—Ropeways Statistic of Carts—Safety of Roads—*Inland Water Transport*—Position of inland waterways in India Administration of Inland Waterways—Second Plan Period—*Civil Aviation in India* Progress of Civil Aviation—organisation of Civil Aviation Aviation training and Flying clubs—Aerodromes and Aeronautical Tele communications—Air Traffic Control Aircraft and Pilots—Night Mail—Non-Scheduled Services—External airline routes Progress of Civil Aviation—Air India International's traffic figures—Non Scheduled Airline operators—Flying clubs—gliding clubs—Foreign Services some important dates *Indian Posts and Telegraphs*—Early History—Postal System Territorial Units—Progress of Postal System—Research and Postal education—Telegraph Service—Telephone—overseas Communications service—Postal education Telegraph Service Telephone—overseas communications service— 151—188

INDIAN SHIPPING

Position of Indian mercantile marine Financial help for shipping Shipping Control Department—Committees—New Merchant Shipping Act—categories of India's Maritime Trade—country crafts—Progress of Indian Shipping coastal and near trades—India and the Conference Lines—Training facilities inland and overseas—Crew Employment Ship Building 189—196

★ Read every month THE ASSAM REVIEW & TEA NEWS which looks after your interest.

★ Increase your sales advertising in the ASSAM REVIEW and TEA NEWS.

★ To know thoroughly about the State of ASSAM, its population, products, industries etc. buy a Copy of ASSAM DIRECTORY & TEA AREAS HANDBOOK 1959.

Publishers

THE ASSAM REVIEW PUBLISHINC CO.

Phone : 23-2251 *29, WATERLOO STREET, CALCUTTA-1*

OUR VISION IS TO REACH THE PEAK
'SUMMIT' IS BUT A STAGE TOWARDS IT
THE INDIA CYCLE MFG. CO. LTD. CALCUTTA
SUMMIT

BANKS IN INDIA

Indian Banking System—Classes of Banks in India—Finance, Investment and Credit Corporations—Reserve Bank of India—Indian Banks—State Bank of India Exchange Banks—Liabilities and Assets of foreign Scheduled Banks—Non Scheduled Banks—Co-operative Banks—Indigenous Banks—Land Mortgage Banks—Important [illegible] Warehousing Board [illegible] Post Office Savings Bank Transactions Number of cheques and amounts cleared Leading Indian Joint Stock Banks 195—214

PUBLIC FINANCE

India's Public Finance Allocation of Revenue Finance Commission—States' share of taxes and central grants Trend of Public Finance—Revised Second Five-Year Plan—Budgetary Position of the Government of India—Revenue and Expenditure of the Government of India Capital Budget .. . 215 - 221

PUBLIC DEBT

Central Composition of Debt Small Savings—Govt of India three months Treasury Bills Interest bearing obligations and interest-yielding assets—debt position of the Govt of India—Central Government loans—Principal items of small savings— 221—224

STATES' BUDGETS

Revenue Account Capital account—State Government loans—Debt position of States—Consolidated Budgetary position of States—Budgetary position of individual State governments 224—229

JYOTISH PRATISTHAN

Reliable and dependable institution for
Bright Samhita Readings. Moreover all horoscopic
calculations and readings are done according
to the Parasariya School of
Astrology.

Please enquire at —

JYOTISH SASTRI PANDIT
BISWANATH BANDOPADHAYA
3A, Sadananda Road, Kalighat,
CALCUTTA-26
Phone No 46-2662

MANUFACTURERS
OF
A WIDE RANGE
OF

**ORIGINAL PHARMACEUTICAL PRODUCTS
OF STANDARD QUALITY**

◆

G. D. A. CHEMICALS LTD.
(General Drugs Antiseptics Chemicals Ltd.)
**36, PANDITIA ROAD,
CALCUTTA-29.**

Gram : SULFACYL Phone : 46-2868

SCIENTIFIC PROGRESS IN INDIA

Scientific Research in India—Govt of India's scientific policy—Role of Indian Scientists—Ministry of Education & Scientific Research—Council of Scientific & Industrial Research—Engineering Research—Medical Research—Agricultural Research—Statistical Research National Research Development Corporation—Central Board of Geophysics Scientific Liaison Office—National Atlas Organisation—Indian National Scientific Documentation Centre—Research Associations by Industries—Nuclear and Atomic Researches Botanical Survey of India—Zoological Survey of India—Survey of India—Anthropology in India—Geological Survey of India—Departmental Researches—India's association with International Scientific Unions—Research Organisation 230—241

INDIAN MINERALS

Production of Indian Minerals—Four categories of India's Mineral Resources—Mines & Mineral Conservation Government Departments Mining Education—Government's Role and Mineral Policy Description of Minerals—Mineral Production of India—Index Number of Mineral Production in India 242—255

UNITED NATIONS

Origin Purposes of U N Finance—Official Language—Membership—U N Flag—Headquarters & Offices Organs of the U N—General Assembly—Security Council Economic & Social Council—Trusteeship Council—International Court of Justice—Secretariats—Specialised Agencies 256—262

INDIAN PORTS

Indian Ports Major and Minor Ports Administrative set up National Harbour Board Light houses Five Year Plans Description of ports—Exports and Imports from three main Ports Shipping at Five Principal Ports of India . 262—270

ORANGE
HONEY
PURITY GUARANTEED

●

Available at
THE KAMALA AGENCY
Private LTD.
Book-Sellers, Stationers
G S. Road, Shillong

B3
SOCKS
CAREFULLY KNITTED
FOR
LONG LASTING

INDIAN PRESS

Begining of Indian Press—Freedom of the Press—Press Laws—Newspapers in India—Indian News Agencies—Press Commission's Reports—Newspaper Associations—Information and Publicity of the Central and State Governments—Information Services—Government of India Tourist Information Offices—Foreign Information Services—Important Indian News Agencies—Journalism Courses in India—Language-wise circulation in p.c.—Daily newspaper circulation—Number of newspapers .. .. 271—289

SPORTS SECTION

Indian Cricket—India's Test Record—cricket championship of India—Football—Hockey- Billiard Champions—National Badminton—Indian Athletic Records—Indian Swimming Records- Cricket- mile runners under four minutes—world track and field records swimming records -Davis Cup—Wimbledon Tennis Championship-world chess champions- world boxing champions—modern heavy-weight champions—speed skating world cycling records World Football cup—Thomas cup—Olympic hockey champions—Third Asian games—New Olympic records—some notable world records .. .. 290—309

AVIATION

Aeroplane Altitude Records—Endurance flight records—fastest trips round the world - balloon records—gliders—parachute—women's flight records—helicopter records .. .. 310—312

A NAME
That Bears
A TRADITION!

D. N. Bose's SANKHA & PADMA Brand Vests

Popular with Three Generations!

D. N. BOSE'S HOSIERY FACTORY

Gram : STOKINET ● CALCUTTA—7 ● Phone : 34-2975

Retail Depot:

HOSIERY HOUSE

55/1, COLLEGE STREET, CALCUTTA-12.

Phone : 34-2995

NEW INDIA PROOFING CO.

MANUFACTURERS OF :

TARPULIN, APRON, BULKING SHEETS,
TEA CHEST COVERS, RAINCOATS,
WNINGS, GROUND SHEETS ETC.

SOLE SELLING AGENTS :

JAMES WARREN & CO. LTD.

31, CHOWRINGHEE, CALCUTTA-16.

OFFICE :

171/A, RASH BEHARI AVENUE,
CALCUTTA-19

FACTORY :

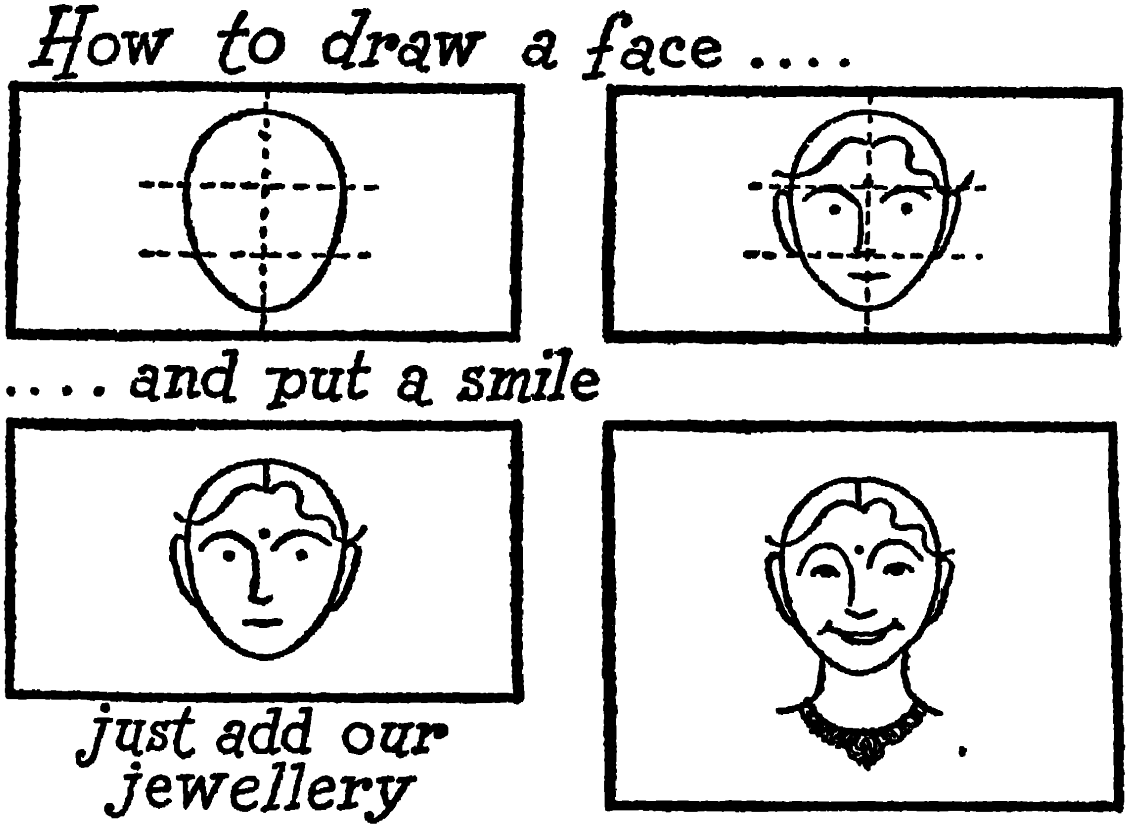
CALSO PARK
CALCUTTA-39

LABOUR IN INDIA

Labour Reforms in India—Labour Laws—Labour Administration—Trade Unionism in India—National Employment Service—India and the I L O—Central Labour Institute—Employment Exchange Statistics—Industrial Disputes in India . 312—325

AGRICULTURE IN INDIA

Importance of Agriculture in India—Defects of Indian Agriculture—Area and soil—crops—government organisations on food and agriculture—Agricultural research and education—ownership and holding—Agricultural policy—Methods of food production—Bhoodan movement Agricultural marketing food crops—Plantation crops—fibres—other cash crops oilseeds Production of food grains—Index numbers of agricultural production Land utilization in India . 325—344



Guinea Mansion

MAIN SHOW ROOM 226, RASHBEHARI AVENUE, CALCUTTA-19
GRAM. "GINIMANN" PHONE 46-1472
BRANCHES · JADU BABU'S BAZAR, BHOWANIPUR, CALCUTTA-20
1, HINDUSTHAN MART, BALLYGUNGE, CALCUTTA-29
PHONE 46-1425

Phone : Regl. 46-5411 Bhowanipur Br. : 47-3269

India's Second Lap of

INDUSTRIAL AND ECONOMIC

PLANNING
ACHIEVEMENT
PROGRESS
ENTERPRISE
REHABILITATION

are inseparably linked with **PAPER**

The Never-failing source of Supply

BHOLANATH PAPER HOUSE PRIVATE LIMITED.

Head Office : 32A, BRABOURNE ROAD, CAL.-1

Phone : 22-1532 33 Post Box No. 995 Gram : 'BIDYASEVA'

Local Branches :
167, Old Chianabazar St.,
134/135, Old Chianabazar St.
64, Harrison Road, Calcutta.
Phone—34-4989

Muffasil Branches :
Nayatola (Patna)
1, Hewett Road (Allahabad)
Balubazar (Cuttack)
Market Road (Ranchi)

Sole Selling Agents of the Paper Stationery Products of

UNITED PAPER STATIONERIES LTD.
CALCUTTA.

FISHERY IN INDIA

Inland fisheries—sea fishing—Estuarine and back water fishing—Refrigeration—fishing industry—varieties of fishes—fish products rate of consumption—Central Board of fisheries—foreign aid—Aquaria and Museums—Pearl fisheries—total fish catch 241—349

ANIMAL HUSBANDRY

Importance of Cattle in India—Livestock and Indian Constitution—All India key village scheme—All India Cattle Show—Division of Livestock—Species of Cattle—Cattle disease Milk Production and Supply Poultry—Animal products—Provincial distribution Trade in Cattle—Livestock & Poultry census 349—357

FORESTS IN INDIA

Forest Wealth of India Forest types of India—National Forest Policy—classification of forests Central Board of Forestry Afforestation & Soil Conservation—Soil Conservation Administrative Set up Five Year Plan—Forest Education and Research India Forest produces and uses—Description of Forest products Area of forests—Forest areas of States and Territories . 358—366

DAIRY FARMING

Milk Production in India Milk adulteration poor yield low milk consumption—Research Associations Large scale production of milk—Dairy Education—Ghee Production Ghee Adulteration 367—370

Lady in Footwear
—from a Seventeenth Century Indian Painting
Bata
Bata Shoe Company Private Limited

jewellers

MITRA BROTHERS

47/2, GARIAHAT RD. CAL. Ph: 46-2415

OFFICIAL OMEGA-Tissot AGENT

WILD LIFE IN INDIA

India's richness in wild life—Physical regions of animals—wild life preservation—Varieties and Description of Animals—Problem of wild life in India—Bird Protection—National Parks and ssanctuaries in India—Zoological gardens in India 370- 377

NATIONAL DEFENCE

Defence organisations—Inter Service Organisations Research and Production- Military Training for the people- Indian Army—Indian Navy—Indian Air Force—Inter Service Training Institutions—Miscellaneous 377—386

NATIONAL INCOME

National Income in India 386—388

INDIANS OVERSEAS

Indians Overseas—History of Emigration—Emigration ports—Ban on entry—Indians Overseas—number of emigrants 389—392

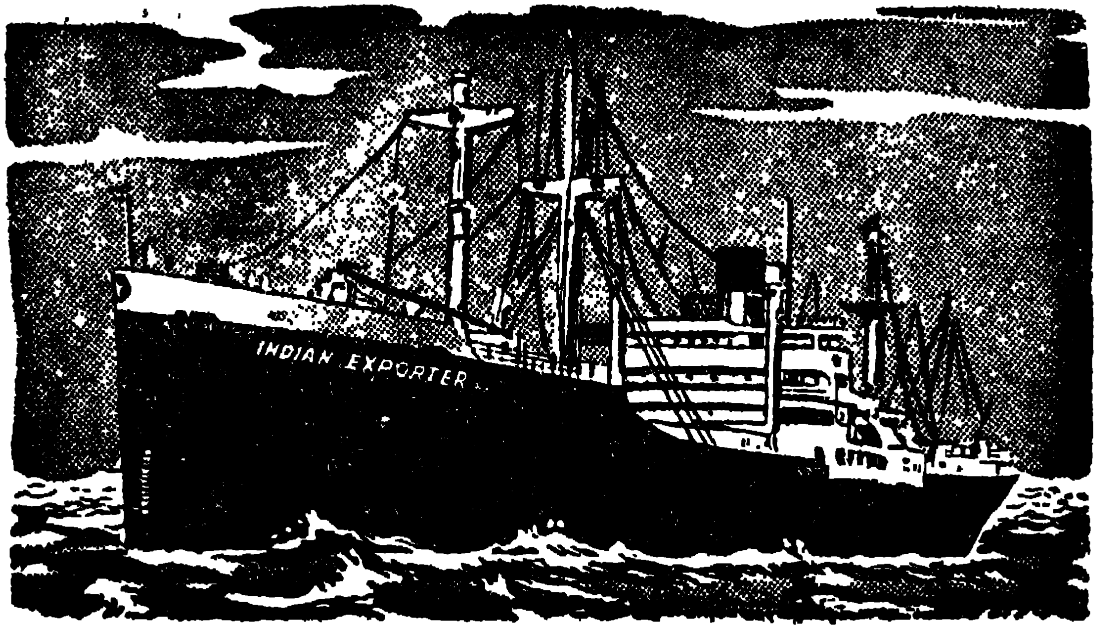
INDIAN CENSUS

Broad outlines—Growth of population—India & the world—Rural and Urban population—Religion—Sex ratio marital status—Birth rates and Death rates—Age structure- Population according to languages—Area and population—population of cities—Literacy in India 392—397

Lest We Forget
Every bit of knowledge is imprinted on
PAPER
RAGHUNATH DUTT & SONS.
PRIVATE LTD.
PAPER—BOARD—STATIONERY—PRINTING INK REQUISITES
"RAGHUNATH BUILDINGS"
2-B, Brabourne Road, Calcutta-1.

Phones : 22-4991 & 22-4992 P.O. Box 762
Gram : "NOTEPAPER"

Branches :
VARANASHI, U.P. ; PATNA, Bihar ; CUTTACK, Orissa ,
GAUHATI, Assam.



Our fleet of sixteen modern freighters offers fast, regular and dependable service between

INDIA—U. K. & the CONTINENT • INDIA—SOUTH AMERIKA
INDIA—BLACK SEA & EASTERN MEDITERRANEAN PORTS
Also around INDIAN COAST

★

INDIA STEAMSHIP CO., LTD.
"INDIA STEAMSHIP HOUSE"
21, Old Court House Street, Calcutta-1
Managing Agents: **LIONEL EDWARDS (PRIVATE) LTD.**

INDIAN ARCHAEOLOGY

Administration—Functions of the Department—Archaeological Research—Publication—National Archives of India—Historical Records Commission .. 398—401

LANGUAGES—WORLD & INDIA

World's Greatest Languages—World's Languages—Indian Languages—Speakers of principal Indian languages—Tribal languages or dialects—other Indian languages—principal non-Indian language speakers . . 402—407

REFUGEES IN INDIA

The refugee problem Expenses of displaced persons—Government's help—Development of Dandakaranva . 408—410

PUBLIC HEALTH OF INDIA

Public Health Administration Ministry of Health—Problem of public health in India—medical and health education—Drugs and Medical Stores—Development of indigenous systems of medicine—Boards Associations, Councils, etc.,—Prevention and control of major and tropical diseases—India and the international assistance—Ten year health Plan—central laboratories & medical researches—Births in India—Deaths in India medical practitioners in India—Hospitals and patients—Food and nutritions—composition of balanced diet—medical education . 410—423

FOR EFFECTIVE PUBLICITY
of
YOUR WARES OR CAUSE

Kindly Entrust

INTERNATIONAL ADVERTISING SYNDICATE

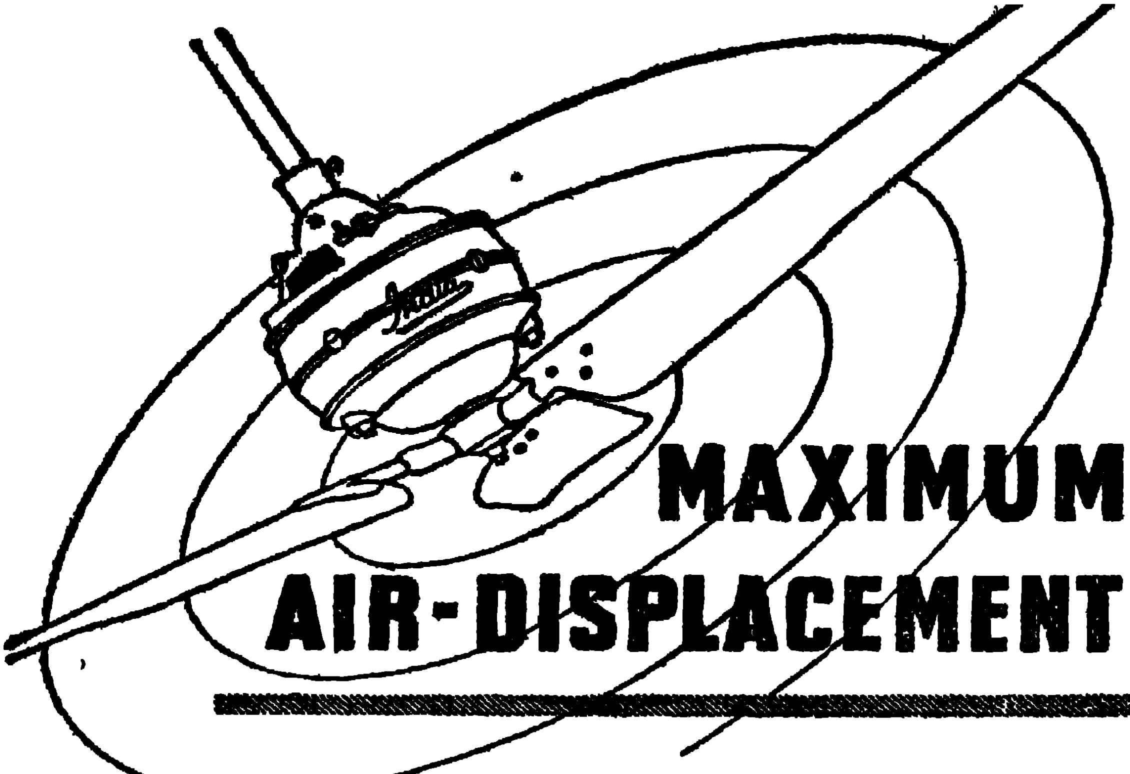
6/3 MADAN STREET, CALCUTTA-13
Phone : 23-2439

: Specialises in :

PLANNING ● DESIGN ● LAYOUT ● CAPTIONS ● WRITE-UPS
SHORT FILMS ● CALENDARS ● DIARIES ● POSTERS
CINEMA ● PRESS ● OUT-DOOR

PUBLICITY ● PUBLIC RELATIONS

Printing Jobs including Brochures & Souvenirs also undertaken.



MAXIMUM AIR-DISPLACEMENT

HOW DO YOU GET IT

Apart from the make, there is one simple yet important factor which mainly determines the benefit of maximum air displacement by a ceiling fan and that is the height at which it is placed.

Tests have proved that a ceiling fan placed at a height of 9½' from floor level gives you the fullest benefit of air displacement.

IEW ***FANS HAVE A HIGHER CAPACITY FOR AIR DISPLACEMENT AND THAT TOO AT THE LOWEST CURRENT COST.***

INDIA D.C., ROHTAS D.C., BHARAT A.C.,
BEHALA A.C., RANJIT D.C., TARA A.C. D.C.

THE INDIA ELECTRIC WORKS LTD.

BROADCASTING IN INDIA

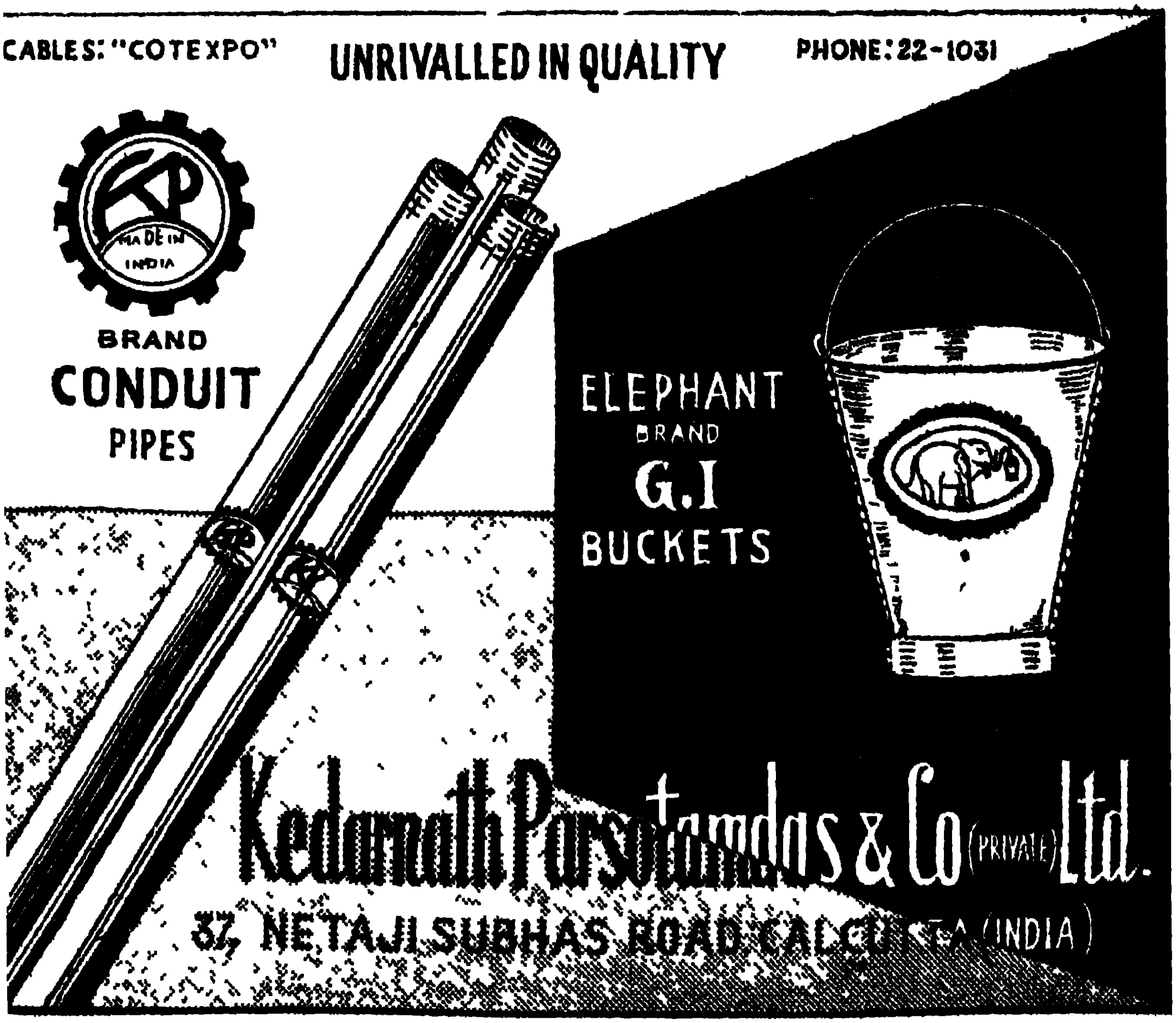
Early History—the organisation—Programmes—Community broadcasts—Vividh Bharati—News—External Services—Programme Exchange—Transcription Service—monitoring service—Song and Drama Division—Listener Research—Advisory Committees—Programme Journals—Research—Air Facts—Domestic Receiver sets in India 421--429

INDIA'S POWER SUPPLY

Power Generation in India—Function and administration of Irrigation and power—power organisation—Electricity Development in India—State of power Development in India—Installed power capacity in States—Power development under the Plans—Electric Energy generated and sold .. .. .. 430—434

INDIAN IRRIGATION

Usefulness of Indian irrigation—Government Departments—Flood Control—River valley projects—main types of irrigation—Principal irrigation works of India—River valley projects—Power & Irrigation projects in the First Five-Year Plan—Principal irrigation works in the Second Five-Year Plan .. .. 435—446



Get rid of

PRICKLY HEAT

miseries!

PRICKLY HEAT POWDER

Prevents chafing & skin irritations

A·K·LOTION

Protects the skin against prickly heat

FOR IMMEDIATE RELIEF—USE

Bathgate's

PRICKLY HEAT POWDER
and A. K. LOTION

BATHGATE & CO. LTD.
CALCUTTA-1

INSURANCE IN INDIA

Nationalisation of insurance—Functions and organisation—Associate bodies—Life Insurance Statistics—Employers State Insurance Corporation . 447—450

INDIAN INDUSTRY

Administrative Set up—Industrial Policy of the Government—Schedule of Industries Control of industries Financial aid to industries—Nationalised industries—Description of Indian Industries Index of Industrial Production—Production of selected Industries . 450—479

COTTAGE & SMALL SCALE INDUSTRIES

Pattern of Cottage Industries—The Organisation and Function—Special Cottage Industry Products of India State Cottage Industries— 480—487

BHOODAN MOVEMENT

Gramdan Land gifts from States Gramdan 488—490

INDIA'S COMMERCE

Pattern of Indian Trade The Government Function and organisation—Efforts to increase India's foreign trade—Import and Export Controls Indian Exchange Control—Internal Trade Direction of Foreign trade Tariff Commission—Indian foreign exchange reserve India's Sterling balances India's balance of payments—Value of imports exports re-exports etc India international trade—India's balances of trade in merchandise—Composition of India's foreign trade 491—498

PROHIBITION IN INDIA

Begining of Prohibition in India Present State of Prohibition in India—Position of the States Prohibition Inquiry Committee's Report 499—502

EDUCATION, SCIENTIFIC RESEARCH & CULTURAL AFFAIRS

Indian Education—The present set up—Educational System in India—Ministry of Education—Higher and University Education—Education of the handicapped—Some Advisory Bodies and Subordinate Offices—*Scientific Research & Cultural Affairs*—The new Set up—Organisations and Offices for Cultural Affairs, Physical Education, Scientific Research and Technical Education—Technical Educations—Museums in India Vice Chancellors of Universities—Universities of India—Scientific Research & Laboratories Humanistic Institutions 502—523

ART & LITERATURE

Sahitya Akademi Sangit Natak Akademi—Lalit Kala Akademi 524—528

CINEMA IN INDIA

History of Film industry—Film Enquiry Committee's Report—Government of India's Control—Films Division—Children's Films—Film Advisory Board—Censorship of Films—Film Advisory Board—Censorship of Films—Taxation—Film Federation of India—State awards for films—Indian Feature Films—Import of Cinema films equipments etc—Cinema Circuits—Facts of Cinema in India—Academy Awards—Oscar awards—State Film awards—Cannes international Film Festival—San Francisco International Film Festival—West Berlin Film Festival—Venice Film awards—Vancouver Film Festival—National Board of review of motion pictures 528—537

LAND REFORMS IN INDIA

Objective of Land Reforms—Land Reform Resolution of the Congress—Compensation payable in crores of rupees—Ceilings on future holdings—Ceilings on existing holdings 538—542

PHONE —34-1781

167/C 167/C/1 BOWBAZAR STREET, CALCUTTA—12 GRAM -BRILLIANTS

Branch-BALLYGUNGE-200/2/C RASHBIHARI AVN., CAL-29. Phone-46 - 4466

SHOWROOM OF OLD ADDRESS: 124, 124-1, BOWBAZAR STREET, CALCUTTA-12

REMAIN OPEN ON SUNDAY ONLY

NEW BRANCH SHOWROOM AT JAMSHEDPUR—PHONE— JAMSHEDPUR—CITY-2558A.

PUBLIC SERVICES IN INDIA

Public Service Commission Conditions of Service—Important functions of the Commissions Examinations Central Secretariat Service Relaxation of qualifications for Services Pay and scale of some Services 542 546

FIVE-YEAR PLANS

First Five Year Plan—Objective of the Plan —Source of finance— Outlay of the 1st Plan— *Second Five Year Plan* Objectives Distribution of plan outlay 547 550

COMMUNITY DEVELOPMENT PROJECTS

Objectives of Community Development Administration number of Blocks National Extension Service 550 553

ATOMIC ENERGY IN INDIA

Birth of Atomic Energy in India Department of Atomic Energy Thorium Plants—Atomic Energy Minerals in India 554—557

MINERAL OILS IN INDIA

Importance of Mineral Oil and Gas in India Administrative and functional set-up —Oil Exploration in India Oil Refineries in India Present oil production in India 558—562

FAMILY PLANNING IN INDIA

Object of the Plan—Central Board—Budget of the Plan Second Five Year Plan—Training and Research—Family Planning Programme 562—564

INDIAN ELECTIONS

Election Commission Elections to the Lok Sabha State elections Election Statistics —Legislative Assemblies of the States —Facts about 1951 and 1957 General Elections 564 567

INDIAN VILLEGE

Structure of Indian Villages Village Administration— 568—572

COMMISSIONS & COMMITTEES

Inter-State Transport Commission—Kerala Food Poisoning Enquiry Commission—Hotel Standards Committee U K Mission's Report on site for new shipyard—Direct Taxes Administration Enquiry Committee slum clearance 572—574

AWARDS, HONOURS, PRIZES

Bharat Ratna— Padma Bibhusan Padma Bhusan Padma Sree— Sahitya Akademi awards —Rabindra Memorial Prize Lalit Kala Akademi Awards Bengali literary awards honours to Sanskrit scholars National professors—order of precedents for wearing medals etc 575—574

CENTRAL ACTS 578

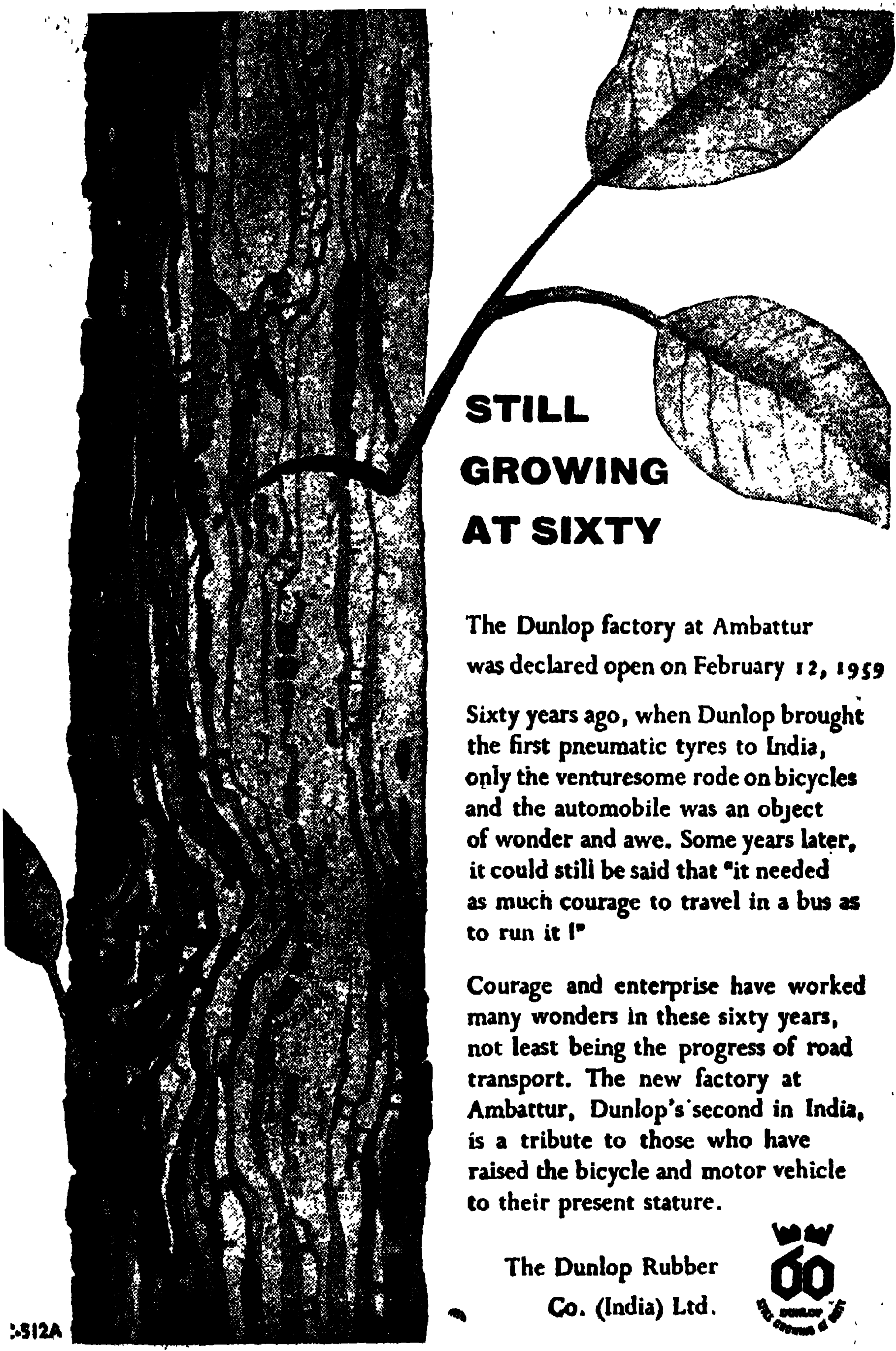
List of Central Acts of 1958 578

INDIAN MINISTRIES

Functions and organisation—Scope of work— Functions of Government Ministries 580— 587

INDIAN PARLIAMENT

Department of Parliamentary Affairs —officers of the Parliament —Powers and Privileges—Committees of the Parliaments—Parliament Secretariats 587—590



STILL GROWING AT SIXTY

The Dunlop factory at Ambattur was declared open on February 12, 1959

Sixty years ago, when Dunlop brought the first pneumatic tyres to India, only the venturesome rode on bicycles and the automobile was an object of wonder and awe. Some years later, it could still be said that "it needed as much courage to travel in a bus as to run it !"

Courage and enterprise have worked many wonders in these sixty years, not least being the progress of road transport. The new factory at Ambattur, Dunlop's second in India, is a tribute to those who have raised the bicycle and motor vehicle to their present stature.

The Dunlop Rubber
Co. (India) Ltd.

-S12A

USEFUL INFORMATION

New metric system of weights and measures—Capital Gains Tax—rates of Estate Duty—rates of Wealth Tax—rates of Expenditure Tax—Gift Tax rates 59—0592

INDIAN STATISTICS

Sterling balances—Borrowings by State Governments—mileage of National highways—Indian employees in foreign firms—Printing presses and publications—India's Defence Expenditure .. .. 593—594

INDIA IN WORLD ECONOMY

Average size of family holding—P.C. of population dependent on land—World Roads—World Telephones—per capita generation of Electricity—world Livestock—world motor cars—world radios—Gold and Foreign Exchange Reserves in Central banks—National Income—world's Natural rubber production—world tea production—world cotton yarn production . .. 595—597

OUTSIDE ASSISTANCE

International Bank—World Bank—Colombo Plan—United States Aid—Rumanian Aid—Ford Foundation's Aid—Rockefeller Foundation—Norwegian Aid—Japanese Aid—Russian Loan—Assistance from U.K.—India's assistance to other countries 598—609

SCHEDULED CASTES & SCHEDULED TRIBES

. 610—613

PROGRESS OF SCIENCE, 1958

Conquest of South Pole—Atom-powered submarine—Fall-out menace—International Conference on the principal uses of Atomic Energy—Towards the Moon & Sun—Achievements of the International Geophysical Year .. 614—617

INTERNATIONAL AFFAIRS

Conference on the law of the sea—NATO—Suez Canal—the Middle East—United Arab Republic—Situation in Algeria—Communist China and the offshore islands—Antarctic treaty—Fifth Republic of France—Hungary—Fall of Democracy—Berlin Crisis—Democracy in Africa . . .. 618—634

WORLD POLITICS IN A NUTSHELL

United Nations—Treaties and pacts—communist world—U.S.A's. 49th State—U.S. Foreign economic aid since World War II—major groupings at the United Nations—some significant votings in the United Nations .. 635—638

INDO-PAKISTANI RELATIONS

Kashmir issue—Indo-Pakistan water dispute— 638—640(c)

INDIAN AFFAIRS

Atomic Energy Commission—recognition of parties—devolution of financial powers—reorganisation of Planning Commission—Report of the University Grants Commission—Reappraisal of the Second Plan—Dandakaranya Developments—Chagla Commission and L.I.C. Affairs 640 (c)—640 (j)

INDIA IN WORLD AFFAIRS

India's foreign policy—Quemoy & Matsu and the Communist China—India and South Africa—India and the Cyprus issue—Indians in Ceylon—Hague Convention on cultural property—India's accession to Brussels convention 640(j)—640(h)

new
life
new
needs

She needs the gentle assistance of a recuperative tonic. Pleasant to take, **Vino-Malt** provides nutrition, stimulates appetite, promotes digestion and tones up the system. **Equally suitable for expectant and nursing mothers.**

VINO-MALT

BENGAL IMMUNITY CO., LTD.

STATES OF INDIA

Andhra Pradesh—Assam—NEFA—Naga Hills & Tuensang Area—West Bengal—Bihar—Bombay—Madhya Pradesh—Madras—Orissa—Punjab—Uttar Pradesh—Rajasthan—Jammu & Kashmir—Mysore—Kerala Delhi—Pondicherry—Himachal Pradesh—Manipur Tripura Laccadive Minicoy & Amindivi Islands—Andamans and Nicobar Islands 642-692

STATES WITH SPECIAL RELATION WITH INDIA

Sikkim—Bhutan 692-694

STATES BORDERING INDIA

Nepal—Tibet—Portuguese India Pakistan 694-699

INDIA DIRECTORY

Government of India Central Ministry Secretaries to the Government of India—Defence Forces Tariff Commission—Supreme Court of India—Atomic Energy Commission Law Officers to the Government of India—Finance Commission—Election Commission Law Commission Copyright Board—University Grant Commission—Railway Board General Managers Indian Railways Union Public Service Commission—Planning Commission Important Posts State Governors—Rulers of Territories Speakers of the Legislature Assesblies Chairmen Legislative Councils 700-709

STATE MINISTRIES

Andhra Pradesh Assam Bombay Kerala—Jammu & Kashmir Bihar—Madras—Andhra Pradesh Mysore Orissa Punjab—Rajasthan Uttar Pradesh—West Bengal Laccadive Minicoy & Amendivi Islands—Andaman & Nicobar Islands—Pondicherry 709-717

LOK SABHA

Name of the Members of the Lok Sabha from all the States 718-725

RAJYA SABHA

Names of the Member of Rajya Sabha from all the States 725—728

INDIA'S REPRESENTATIVES ABROAD

Names Address of all Indian Ambassadors Consuls High Commissioners etc of India 728—732

INDIAN GOVERNMENT TRADE REPRESENTATIVES

733—735

FOREIGN DIPLOMATS IN INDIA

Foreign Ambassadors Consuls High Commissioners etc to India 735—738

TRADES REPRESENTATIVES OF OVERSEAS GOVERNMENTS IN INDIA

Names and addresses of Trade Representatives 738—740

WHO'S WHO 741-772

ADDENDA 744

TRADE MARK
EASTERN

For

ALL SORTS

Of

OFFICF FILES

Insist on India's Best

- LEVER ARCH
- SEMI-LEVER ARCH
- AUTO CLIP
- DOCUMENT CASE
- RING CLIP
- SEMI-RING CLIP

- DURABILITY
- UNPARALLFLED
- QUALITY SUPERIOR
- RATE MODERATE
- AVAILABLE
- INDIAWIDE

★

Always Specify **EASTERN** *Brand Products*

Manufactured by

EASTERN INDUSTRIES CO.

9/4, PATUATOLA LANE,
CALCUTTA-9
Phone : 34-4708

WANTED

Foreign Agents
Parties Interested in Export
of our above Products

INDIA AT A GLANCE

AREA

India covers an area of 12,66,900 square miles. It has a land frontier of 9,309 miles long and a coast line of 3,535 miles. It is approximately thirteen times as large as United Kingdom, eight times the size of Japan and a seventh of U.S.S.R. It is the seventh largest country in the world. It extends about 2,000 miles from north to south and about 1,500 miles from east to west. Its triangular peninsula juts into the Indian Ocean and is bounded on the south-west by the Arabian Sea and on the south-east by the Bay of Bengal. India is bordered on the north-west by West Pakistan and on the north-east by China, Burma, East Pakistan, Nepal and Tibet. The Andaman and Nicobar Islands in the Bay of Bengal and the Laccadive, Minicoy and Amindivi Islands in the Arabian Sea are parts of India.

PHYSICAL DIVISION

India is divided into *three main topographical areas.*

1. The Himalayan region (*Mountain wall*).
2. The Indo-Gangetic plains (*the Plains*).
3. The Deccan or Peninsula of the south (*Peninsular region*).

The *Himalayan region* extends across the northern border from Kashmir to the Burma frontier. The Himalayas comprise a system of stupendous fold-mountain ranges, some of them the loftiest in the world; extending in the shape of a scimitar with its edge facing southward. This region runs for 1,500 miles from the eastern extremity of Assam to the western limits of Kashmir with a breadth varying from 150 to 200 miles South of the mountains are the *Indo-Gangetic plains* They are about 1,500 miles long, east to west, and from 150 to 200 miles broad. The plains are broken by intermittent low-lying mountain ranges and are watered by India's three main rivers—the Ganges, the Brahmaputra and the Jamuna—which flow southward from the Himalayas to the Bay of Bengal. The peninsular region is a table land and lies within the tropics It is bounded on the three sides by mountains—on the north by the Vindhya and Satpura ranges, on the west by the Western Ghats, on the east by the Eastern Ghats Two coastal strips of flat land exist on the outer side of both Western and Eastern Ghats—the western coastal strip is known as the Konkan in the north and Malabar in the south, the eastern coastal strip is known as Coromondal Coast. This peninsular region is traversed by the rivers Narmada and Tapti which flow into Arabian Sea and Mahanadi, Godavari, Krishna and Kaveri which flow into Bay of Bengal.

CLIMATE AND RAINFALL

India has a great diversity of climatic conditions. Lying largely within the tropics and with the great Asiatic continent to the north, and the vast expanse of the Indian Ocean to the South, the climate of India is essentially the tropical monsoon type. The average annual rainfall in India is 42 inches. The areas of certain rainfall are West Bengal, Assam, West Malabar Coast, western slopes of the Ghats and the upper valley of the Narmada. The zones of uncertain rainfall are Uttar Pradesh, Western and Northern Rajasthan, Central Rajasthan bordering on the U. P. and large part of Bombay. As tropical monsoon climate prevails in most of the country, changes in the time or nature of the monsoons can vitally affect the Indian economy. There are two monsoon seasons. The *south-west monsoon* from June through September is the most important. It brings heavy rainfall to most of the country but only light showers in the central and eastern parts of the peninsula. The monsoon's direction reverses in November blowing from north-east through February. The *north-east monsoon* provides the heaviest rainfall of the year to the south-eastern areas but dry weather everywhere. The climate is everywhere dominated by the seasonal rhythm of the monsoons and about 85 per cent of the rain comes from the south-west monsoon between June and October.

The temperature in the north ranges from a mean of about 40 degrees in January to 115 degrees in May. There is a cool winter season from November through February, a hot summer period from March through June and a humid rainy season from July through October. The plains are hot throughout most of the year. The temperature of the plateau is also hot and fairly constant, although the temperature and humidity are somewhat lower than the plains.

We can divide the country into four zones according to rainfall: (1) *Wet zone*, where minimum rainfall is 100 inches. This includes West Bengal, Assam and Western coast strips. (2) *Intermediate zone* (zone of moderate rainfall): it includes portions of Central India, Himalayas to Godavari river, east-coast of the peninsula and eastern side of the Western Ghat and up to Baroda, where rainfall is between 40 inches and 80 inches. (3) *Dry zone*, where rainfall is less than 40 inches. (4) *Desert zone*, where rainfall is less than 20 inches, *i.e.*, Rajasthan and East Punjab.

SOIL OF INDIA

About 35 per cent of the land area is fertile, well-watered and under cultivation. 20 to 25 per cent is left fallow or is waste land which can be brought under cultivation. Forests cover some 15 per cent of the land area. The remainder consists of deserts, semi-deserts and mountain ranges.

Indian soil may be mainly classified under four different heads, namely, (1) *alluvial soil*, (2) *black soil*, (3) *red soil* and (4) *laterite soil*.

The alluvial soil is the most important soil and is formed by the silts brought by the rivers every year and deposited on their banks. It is very fertile and covers greater part of the northern India between the foot of the Himalayas and the northern slopes of the Vindhyas and extends in a narrow fringe round the coastline of the peninsula. Territorially they occupy Punjab, Uttar-Pradesh, Bihar, West Bengal, parts of Assam and Orissa and also the coastal regions of Southern India. The whole of the Indo-Gangetic plain is comprised in this area.

Red soils cover the whole of Madras, Mysore and south-east Bombay, east of Hyderabad and Madhya Pradesh to Orissa and Chota Nagpur. Northwards the red soil extends into greater part of Santhal Parganas and the Birbhum district of West Bengal, the Mirzapur, Jhansi and Hamirpur districts of the Uttar Pradesh, the Baghelkhand States of Central India, the Aravalis and the eastern half of Rajasthan.

Black soil or black cotton soil is formed by the lava of volcanic eruptions and is very suitable for cotton cultivation. The black soil covers greater part of Bombay and Saurashtra, western part of Madhya Pradesh, Madhya Bharat and Hyderabad and some parts of Madras State. Black cotton soil is exceedingly compact and tenacious and sticky when wet. The water-holding capacity of this soil is good. Cotton, jawar, wheat, linseed and gram are cultivated in these areas and the soil is rich in iron and aluminium but very poor in organic matter and other plant nutrients.

Laterite soil is derived by the atmospheric weathering of several types of rocks under monsoon conditions of alternating dry and wet periods. This soil is found on the summits of the hills of the Deccan, Madhya Bharat, Madhya Pradesh and of the Rajmahal and Eastern Ghats and certain parts of Orissa, Bombay, Malabar and Assam.

LANGUAGES

According to the census of 1951, the total languages or dialects in India are 845 including 720 Indian languages spoken by less than a lakh persons each and 63 non-Indian languages. Some 32.4 crores or 91 per cent of the population speak one of 14 languages specified in the Constitution. This multiplicity of languages need not dismay any one, because only 12 are of major importance. Hindi, the national language, is spoken by the largest number of people. English is used in Government notices and correspondence and is widely understood in Government and business circles. The Constitution of India provides that English is to continue to be used for official purposes at least until 1965, but eventually Hindi in Devnagri script is to become the official language of record.

RIVER SYSTEMS

(1) *Rivers of Northern India*—These Himalayan rivers rise in the mountain wall or beyond it. The rivers are fed with waters from the gradual melting of snow. They do not depend entirely for their waters on the monsoon rains. The Himalayan rivers have a flow throughout the year.

The three greater river systems of northern India are :—(*a*) *Indus* river with its three tributaries *Ravi*, *Beas* and *Sutlej*, waters the Punjab. (*b*) *The Ganges* with a course of fifteen hundred miles, drains Himalaya's southern slopes and with its tributaries, *Jamuna*, *Gogra*, *Gondak*, *Chambal*, *Kosi*, *Sone*, entern Bay of Bengal through extensive deltas with multitude of channels; (c) *The Brahmaputra* flows down through Tibet, Assam and East Pakistan and discharges its floods after a course of sixteen hundred eighty miles into Bay of Bengal.

(2) *Rivers of Peninsular India*—They are quite different from the rivers of the northern India. They rise in the hills of the plateau and they are fed only by monsoon rains. The rivers rise near Western Ghats, and flow towards Bay of Bengal. The most important are *Mahanadi*, *Godavari*, *Krishna* and *Kaveri*. In the north of the plateau, two important rivers, *the Narmada* and *the Tapti*, flow westwards.

PORTS

India has very few natural harbours, because it is broken by very few inlets of the sea; the sea round the coast is very shallow and the shores are usually flat and sandy. Except Bombay, Okha and Cochin, all other ports in Western India coast are virtually inaccessible during the monsoon. The eastern coast of India is surf-bound and has no natural harbour, excepting Visakhapatnam. Calcutta is about 90 miles from the sea and the formation of sand banks in the Hooghly has made Calcutta a dangerous port.

Six 'major' ports of India are—Calcutta, Visakhapatnam, Madras, Cochin, Bombay, Kandla.

The principal ports of India are Bedi Bunder, Okha, Porbandar, Surat, Kandla, Bombay, Marmugao, Mangolore, Calicut, Cochin, Alleppey, Quilon, Tuticorin, Dhanushkodi, Negapatam, Karikal, Cuddalore, Pondicherry, Madras, Masulipatam, Kakinada, Visakhapatnam, Calcutta. The number of ports notified as open for traffic on the whole coast of India under Indian Ports Act 1908 is 226. Practically all the India's foreign trade is channelled through one of the six main ports which are under Central Government supervision.

PEOPLE

According to the 1951 census, India has a population of 35,68,79,394 of whom only 17.3 per cent live in cities and towns, while 82.7 per cent live in villages. The rate of population increase is around 1 per cent a year. The life expectancy is only 32 years, due in large part to the high death rate among infants.

India has 947 females for every 1,000 males. The number of males thus exceeds that of the females in all states except Orissa, Manipur, Madras, Travancore-Cochin and Kutch. The average density of population in India is 312 per square mile.

The classification of population according to means of livelihood shows that 70 per cent of the people of the country depend on agriculture and 30 per cent live by non-agricultural professions. Out of 100 Indians, 47 are mainly peasant-proprietors, 9 mainly tenants, 13 landless labourers, one a landlord or rentier, while 10 are engaged in industries or other non-agricultural productions 6 in commerce, 2 in transport and 12 in services & miscellaneous professions.

Of the total population of the country, only 5.2 crores or 17.3 per cent live in cities and towns, while the remaining 29.5 crores or 82.7 per cent live in villages. There are 3,018 towns and 5,58,089 villages in India. 73 cities in India have a population of one lakh and over.

RELIGION

The population of India according to religion is as follows—*Hindus* 3,032 lakhs, 85 per cent; *Muslims* 354 lakhs, 9.92 per cent; *Christians* 82 lakhs, 2.30 per cent; *Sikhs* 62 lakhs, 1.74 per cent; *Jains* 16 lakhs, 0.45 per cent; *Buddhist* 2 lakhs, 0.06 per cent; *Zoroastrians* 1 lakh, 0.03 per cent; *other religions* (tribal) 17 lakhs, 0.47 per cent; *other religions* (non-tribal) 1 lakh, 0.03 per cent. *Total* 3,567 lakhs.

INDIAN RACES

During the British period the first official enumeration of the people of India was made by Sri Herbert Risley, which was an official pronouncement accepted very largely both in India and outside India, though it is now regarded as arbitrary classification based on insufficient data and immature science. Indian races were divided into seven broad groups, such as *Mongoloid, Indo-Aryan, Dravidian, Mongolo-Dravidian, Aryo-Dravidian, Scytho-Dravidian* and *Turko-Iranian.*

Next classification was made by Dr. J. H. Hutton in 1933 based on race-cum-language and culture sequence. According to this theory all people came to India from outside, such as—

(1) *Negritos* from Africa—the oldest people to have come to India now surviving in the Andaman islands and in Malaya. Traces of them seem to occur among the Nagas in Assam and in certain tribes in South India.

(2) *Proto-Australoids*—who came from the East Mediterranean area.

(3) *Early Mediterraneans*—who brought earlier forms of the Austric speech.

(4) *Civilised or Advanced Mediterranean*—who became Dravidians in India.

(5) *Armenoids*—a specialised offshoot from the standard Alpine stock probably came with the civilised Mediterraneans (Dravidians) and spoke their language.

(6) *Alpines*—found in Gujarat and Bengal; earlier than Vedic Aryans but probably speaking Aryan dialects.

(7) *Vedic Aryans or Nordics*—who brought the Vedic Aryan (Sanskrit) speech.

(8) *Mongoloids*—Not important for the greater part of India as they touched only the northern and eastern fringes.

The most recent and authoritative classification has been made by Dr. B. S. Guha, Director of Anthropology, who divides the people of India into six main races with nine sub-types.

(1) *Negrito*—is now almost extinct in India, a small group is still surviving in Andamans and its traces have been found among Kadars and Palayans of Cochin and Travancore Hills, Irurals of the Wynad, the Angami Nagas of Assam and some of the Rajmahal peoples like the Semangs of Malaya and the Papuans of New Guinea, Hill tribes of Bihar. They are related to the Asian and Oceanic but not to the African Negroes and Negritoes.

(2) *Proto Austroloids*—are related genetically to the Australians as well as the Europeans. They survive in a good many aboriginal peoples of the present day India, although more or less mingled with other people. The majority of the tribal peoples of central and southern India belongs to this group. Throughout the greater part of India, the Proto-Austroloid peoples still live as the lower castes or sections of the Indian people.

(3) *The Mongoloid Group*—is found in the mountainous zones of north and north-east India. This group is divided into (1) Palaeo-Mongoloids consisting of long headed and broad headed types. They form a dominant element in the tribes in Assam and the Indo-Burmese frontier and among the less primitive types in Burma and in Chittagong ; (2) Tibeto-Mongoloids are found in Sikkim and Bhutan. Their physical characteristics are : short and broad face with high cheek bones, a skin fold from the upper-eyelid covering usually the inner eye corner giving the eye a slit and oblique appearance, scanty hair on face and body and light brown skin with yellowish tint.

(4) *Mediterranean Group* consisting of (*a*) Palaeo-Mediterranean, medium statured, dark skinned and slight built, found in Kannada, Tamil and Malayalam tracts ; (*b*) Mediterranean, true European type found in the Punjab, Upper Gangetic Valley and is supposed to represent civilised pre-Aryan Dravidian people of Northern India, who contributed largely to the evolution of Hindu people and culture of North India ; (*c*) Oriental Type, sometimes called Semitic or Jewish, found in the Punjab, in Sind, in Rajputana, in western U.P. and in some other parts of India.

(5) *Western Brachycephals* consisting of (*a*) Alpinoid, (*b*) Dinarik and (*c*) Armenoid. They seem to have evolved in the Central Asian mountain regions and both Alpine and Dinarik varieties appear to have spread over the greater part of India, *i.e.*, Bengal, Orissa, Kathiawar, Kannada and Tamil countries, Gujarat, West coast of India excepting Malabar. The Parsis of Bombay are allied to Armenoids.

(6) *Nordics* are the Aryan speaking group of India who are responsible for India's Hindu civilization and seem to have come from the Eurasian steppe lands and entered India during the second half of the second millennium B.C. The Nordic elements are strong in North-West Frontier of India, in the south of Hindu-Kush range. Nordic elements are present in mixed form in Punjab, Rajputana, Upper Ganges Valley. They are also found among higher castes and groups and also Nordic type predominates in certain sections in India.

Lastly the author of this classification Dr. B. S. Guha has, however stated, "It must be clearly understood that no rigid separation is possible as there is considerable over-lapping of types."

MINERALS

India is very rich in mineral resources. She is favoured with a supply of coal sufficient for its present and future industry. Coal reserves are estimated at 20 thousand million long tons, of which 5 thousand million tons are good-quality coal. More than 80 p.c. of India's coal is produced in the States of Bihar and West Bengal. Other coal mining areas are Madhya Pradesh, Orissa, Hyderabad and Assam. Large deposits of lignites have recently been found in Madras coastal plain. The country has enormous resources of iron ore, her deposits of high grade ore being among the richest in the world. Ores of good quality are found in Bihar, Orissa, Madhya Pradesh, Madras, Bombay and Mysore.

Deposits of mica and manganese are large enough not only to meet present domestic requirements but also to enter significantly into the country's export trade. India produces about 75 p.c. of the world's total supply of mica, the principal deposits being found in Bihar, Rajasthan and Madras. Reserves of high grade manganese ore are estimated at 10 to 20 million long tons and the deposits of low grade ore several times larger. India's bauxite reserves are estimated at 250 million tons. India also has substantial deposits of titanium and thorium ores, kyanite, beryllium, chrome and gypsum. The supplies of refractories, abrasives and limestones are fairly adequate. The country is, however, deficient in copper, tin, lead, zinc, nickel, cobalt, sulphur, and above all petrolium.

Various rock formations of India constitute a rich source of building materials. Rajasthan has pink marble and the Deccan excellent granite. Rich deposits of white and grey marble and limestone occur in various parts of India. Cream and reddish brown sandstone is found in north India.

AGRICULTURE

Agriculture is the major enterprise of India, providing the livelihood for about 70 per cent of the population. The total land available for cultivation is about 358 million acres. The land available for cultivation per capita of population is 1.06 acres. There is hardly a crop of the tropical, sub-tropical or temperate zone which is not grown in the country. Food crops occupy about 85 per cent of the total sown area. Rice accounts for about half of India's cereal output, the other half is accounted for by a variety of grains including wheat, millet and barley. Of the total area under cultivation about 17 per cent is irrigated by major and minor works, the rest being dependent on rainfall. Agriculture is the largest single industry in India and as an agricultural country she occupies a unique position in the world. She is the largest sugarcane producing country in the world. She holds virtual monopoly in lac, follows U.S.A. in cotton, ranks with China and Africa as one of the leading millet producing countries and leads with China in the production of rice and tea. More than 50 per cent of the tea produced in the world comes from India bringing about Rs. 90 to Rs. 150 crores of India's foreign exchange.

Commercial crops form the bulk of the country's exports. India is the important producer of oilseeds and vegetable oils. Among the other cash crops grown in India are tobacco, cotton and jute. India is the third largest grower of tobacco.

ANIMALS

Indian climatic conditions have naturally developed a great variety of animal life and the number of animal species found in India is much greater than that in Europe.

In India, animals are chiefly seen in the valleys of the Himalayas (*i.e. Terai Forests*) extending from Kashmir to the Brahmaputra valley, on the Eastern and Western Ghats and in the jungles of Madhya Pradesh and Central India. There are several big game reserve forests in India which now preserve some rare animals of India.

(1) *Wild Animals—Lion* is almost extinct and is now preserved in Gir forest of Kathiawar. *Tigers* are found all over India. *Leopards* (hunting leopards), *Panthers, Cheetahs* are common in the hills and plains. *Elephants* are found in the lower Himalayan valley, the Brahmaputra valley and forests of Nilgiri hills. *Bears* are available on the hills everywhere. *Deer* and *antelopes* are commonly seen in the plains.

Yaks are only seen in higher Himalayas, *Rhinoceros* lives in the swamps of Assam, North Bengal, Nepal. *Monkeys, Porcupines, Hares, wild Hogs* are to be seen everywhere.

(2) *Domestic Animals—Goats, sheep, horses, ponies, asses, mules, bullocks, buffaloes* are available here and there. *Camels* are seen in the desert districts of Rajasthan and East Punjab.

(3) *Birds—Vultures, kites, hawks, wild ducks, wild geese, patridges, pigeons, parrots, cranes, peacocks, snipes and sand grouse* are available everywhere. Birds in India, as in most hot countries, are more famous for their plumage than for their song.

(4) *Reptiles*—Crocodiles are seen everywhere. The deadly snakes of India are *Cobras, Russel's Vipers, Kerait, Hamadryeds.*

(5) *Fish*—Most numerous fish are of carp family. The finest fish from angler's point is *Masher* found in all streams. The richest and tasty fish of India is *hilsa.* Fishing waters, river and sea, of Bengal and Madras are among the most extensive in the world.

FISHERIES

India with a coastline of 3,500 miles has a fishable area of about 110.000 square miles. Similarly the extensive backwaters, estuaries, lagoons, numerous rivers, large unmber of lakhs, reservoirs, tanks, etc., are a rich potential of inland fisheries. India's annual production of fish is estimated at one million tons, of which 70 per cent is of sea and estuarine origin and the rest comes from fresh water. Average per capita annual consumption of fish in India is estimated at 3.98 lb.

LIVESTOCK

India is one of the largest livestock countries in the world. India has 158.9 million cattle and 44.6 million buffaloes. The poultry population of India is about 97.4 million according to the 1956 census. India has 38.7 million sheep which are an important source of wool and meat. India's 158.9 million cattle constitute a fourth of the world's cattle population. The most important cattle-rearing region is the north-west. It is a belt extending from Kathiawar through Rajasthan and Punjab to Kashmir.

The chief livestock products are milk, butter, ghee, meat and eggs, while a proportion of hides, skins, wool, bones and horns is exported. The annual production of milk is 19.1 million tons and per capita consumption of milk and milk products has been estimated at 5.26 oz. a day.

Among the best cows in India are *Sahiwal* (Punjab) and *Gir* (Saurashtra). The important breeds of bullocks are *Hansi* (Punjab), *Nellore* (Madras), *Amrit Mahal* (Mysore), *Kankraj* (Gujarat), *Kangayam* (Madras), *Kherigarh* (U.P.), *Dangi* and *Nimar* (Bombay) and *Harina* (Punjab). Best breeds of buffaloes are *Murrah* (Punjab), *Jafferbadi* (Saurashtra), and *Mehasana*, *Surati* and *Pandharpuri* (Bombay).

FORESTS

The forests of India cover 22.1 per cent of the country's area. The forests are mainly confined to the Himalayas, Vindhyas and the Deccan. The production of timber amounts to 2.07 million tons per annum at present. The other products of Indian forests are lac, tanning material, gums and resins and medicinal herbs, etc.

India has been divided into three botanical areas and six provinces for the proper study of vegetation of India. The three botanical areas are (a) *Himalayan*—represents a rich, tropical temperate and alpine flora with forests of conifers, oaks, rhododendrons and a profusion of orchids, (b) *Eastern*—consisting of a few conifers, many oaks and palms with a greater preponderance of orchids and (c) *Western* which has only one conifer, few palms and very small orchids without any oak.

These three areas are divided into six botanical provinces based on their climate and physical characters, namely (1) Eastern Himalaya, (2) Western Himalaya, (3) Indus plain, (4) Gangetic plain including Sunderbans, (5) Malabar and (6) Deccan—each with its peculiar flora.

The forest vegetation of India is divided into five types according to the variation in climate, altitude and habitat, such as—(1) *Evergreen*, (2) *Deciduous*, (3) *Dry*, (4) *Hill* and (5) *Tidal* or *Littoral*.

INDIAN FACTS IN A NUTSHELL

GENERAL

India is one of the largest, richest and most populous nations in the world.

* * * *

India is among the ten leading industrial nations of the world.

* * * *

Indian railway system is the largest in Asia and the fourth largest in the world.

* * * *

Land constitutes the largest portion of the natural resources of India.

POPULATION

Next to China, India is the world's most populous country.

* * * *

Every seventh man in the world is an Indian.

* * * *

India's total population of 361.25 million (including Kashmir and Tribal areas of Assam) according to 1951 census, is the second highest in the world, China leading with a population of 463.50 million.

* * * *

The density of population per sq. m. in India is 312.

* * * *

India's population constitutes 15·1 per cent of the total population of the world against China's 19.4 per cent.

* * * *

There are 3,018 towns and 5,58,089 villages in India.

* * * *

Total land area of India is 12,66,900 sq. miles.

* * * *

India's 73 cities have a population of a lakh or over. Uttar Pradesh has the largest number of cities—16.

* * * *

82·7 per cent of the Indian population reside in villages whereas 17·3 per cent live in cities and towns.

* * * *

India has 947 females for every 1,000 males.

* * * *

Bihar contains the largest tribal people in India next only to Madhya Pradesh.

AGRICULTURE

India is mainly an agricultural country. It provides livelihood to 70 per cent of the people and accounts for nearly half of the total national income.

* * * *

India is the world's largest producer of oilseeds and tea and third largest grower of tobacco.

* * * *

The average holding in India is only about 5 acres.

* * * *

India is one of the most fertile lands in the world. But the average yield of every crop per acre is not only the lowest in the world but the figures are tragic.

* * * *

Indian forests cover nearly 22.1 per cent of the country's area.

* * * *

India has now the largest irrigation works and the longest mileage of canals in the world.

* * * *

India now produces 7 per cent. of the world's tobacco.

* * * *

India has fourth of the world's total cattle, *i.e.*, 158.9 million. But India's cattle are worst of the lot, and they are fit only, to produce for India the largest amount of cattle hides. The average yield of milk per cattle per annum is only 413 lb., which is the lowest in the world.

* * * *

The chief crops of India are rice, wheat, sugarcane, tea, cotton, jute, linseed, groundnut, coffee and rubber.

* * * *

India today is one of the largest producers of sugar, 80% of which is produced in the two States of U.P. and Bihar. But the per capita consumption of sugar in India is the lowest in the world.

* * * *

India enjoys virtual monopoly of lac production in the world and leads the world in the production of groundnut and tea.

* * * *

India is the second largest producer of rice, jute, tobacco and cotton.

* * * *

More than 50 per cent of the tea grown in the world comes from India.

MINERALS

India is the second largest producer of manganese, ilmenite mica, magnisite and bauxite and the quality of mica is perhaps the best in the world.

* * * *

India produces about 75 per cent of the world's total supply of mica.

* * * *

Indian iron ore has the highest metal content (about 55 to 70 per cent) which makes the production cost of pig iron the lowest in the world.

* * * *

The annual consumption of salt in India is estimated at 530 lakh tons which means that per capita consumption of salt is one of the lowest in the world. India has, however, become self-sufficient in salt within recent years.

* * * *

India produces annually about 3,50,000 ounces of gold valued at about Rs. 3 crores.

* * * *

India stands 12th among the petroleum producing countries of the world, and the average production per year is about 0·62% of the world output.

* * * *

India ranks seventh among the coal-producing countries of the world.

* * * *

India has no workable deposits of nickle, cobolt, tin, tungsten or mercury ; lead and zinc production is negligible.

TRADE & INDUSTRIES

India is one of the largest industrial countries of the world ; but industry gives occupation to only about 8% of the total population of India.

* * * *

India ranks fifth in the world in volume of trade. Raw materials take the biggest place in the export trade, of which jute, tea, cotton, skin and rice form half.

* * * *

Jute and cotton manufactures, tea, spices, vegetable oils, raw cotton and wool, tobacco, seeds, gums, fruits, mica and manganese have constituted the bulk of the country's export trade in recent years.

* * * *

Cotton and jute manufacturing are the two largest industrial activities of India.

* * * *

Indian film industry is the third largest in the world.

* * * *

Indian textile industry is the leading industry of India. India's tea, sugar, match and vegetable oil industry are among the biggest in the world.

* * * *

Sugar takes the third place among Indian industries.

* * * *

Tata Iron and Steel works at Jamshedpur are now the largest steel works in the East.

* * * *

Production of cement probably constitutes the second major heavy industry in India.

* * * *

Iron and Steel constitute one of India's largest heavy industries.

* * * *

Cotton mill industry is the country's largest organised industry.

PUBLIC HEALTH & HYGIENE

It is estimated that nearly 25 lakh people suffer from tuberculosis and about 5 lakhs die of it annually.

* * * *

The birth rate, death rate and infant mortality in India are respectively 24.8 (1952), 13.4 (1954) and 116 (1952) per 1000.

* * * *

Fever accounts for the highest number of deaths in India.

* * * *

The average expectation of life in India is 32 (1954).

* * * *

Over two lakh people die of cancer annually in India.

* * * *

Malaria still continues to take the largest toll of human lives. It has been estimated that at least 100 million persons in the whole of India suffer from malaria every year. The annual mortality on this account is probably of the order of 1—1½ million.

INDIAN INFORMATION

STATES & TERRITORIES OF INDIA

States	*Population**	*States*	*Population**
Bombay	48,265,120	Mysore	19,401,612
Madhya Pradesh	26,095,680	Bihar	38,827,517
Rajasthan	15,946,731	Orissa	14,645,946
Uttar Pradesh	63,215,742	Madras	29,974,936
Andhra	31,259,815	Punjab	16,134,890
Jammu & Kashmir	4,400,000	West Bengal	26,258,647
Assam	9,043,707	Kerala	13,549,118
Territories		*Territories*	
Himachal Pradesh	1,109,466	Laccadive, Minicoy & Amindivi Islands	21,035
Manipur	577,635	North-East Frontier Agency	..
Tripura	639,029	Naga Hills Tuensang Area	..
Andaman & Nicobar Islands	30,971	Pondicherry	317,163
Delhi	1,744,072		

CITIES OF INDIA

Andhra

Hyderabad	10,85,722
Vijayawada	1,61,198
Warangal	1,33,130
Guntur	1,25,255
Visakhapatnam	1,08,042
Rajahmundry	1,05,276

Bihar

Patna	2,83,479
Jamshedpur	2,18,162
Gaya	1,33,700
Bhagalpur	1,14,530
Ranchi	1,06,849

Bombay

Bombay (Greater)	28,39,270
Ahmedabad	7,88,333
Poona	4,80,982
Nagpur	4,49,099
Sholapur	2,66,050
Surat	2,23,182
Baroda	2,11,407
Kolhapur	1,36,835
Bhavnagar	1,37,951
Rajkot	1,32,069
Jamnagar	1,04,419

Madhya Pradesh

Jabalpur	2,56,998
Bhopal	1,02,633
Indore	3,10,859
Gwalior	2,41,577
Ujjain	1,29,817

Madras

Madras	14,16,057
Madurai	3,61,781
Tiruchirapalli	2,18,921
Salem	2,02,335
Coimbatore	1,97,755
Kozhikode	1,58,724
Vellore	1,06,024
Tanjore	1,00.680

Orissa

Cuttack	1,02,505

Punjab

Amritsar	3,25,747
Jullundur	1,68,816
Ludhiana	1,53,795

Uttar Pradesh

Kanpur	7,05,383
Lucknow	4,96,861
Agra	3,75,665
Banaras	3,55,777
Allahabad	3,32,295
Meerut	2,33,183
Bareilly	2,08,083
Moradabad	1,61,854
Saharanpur	1,48,435
Dehra Dun	1,44,216
Aligarh	1,41,618
Rampur	1,34,277
Gorakpur	1,32,436
Jhansi	1,27,365

---

*Approximate.

West Bengal

Calcutta (Greater)	45,78,071
Calcutta City	25,48,677
Howrah	4,33,630
Bhatpara	1,34,916
Kharagpur	1,29,636
Garden Reach	1,09,160
Behala	1,04,055
Tollyganj	1,49,317

Mysore

Bangalore	7,78,977
Mysore	2,44,323
Kolar Gold Fields	1,59,084
Hubli	1,29,609
Mangalore	1,17,083

Rajasthan

Jaipur	2,91,130
Ajmer	1,96,633
Jodhpur	1,80,717
Bikaner	1,17,113

Kerala

Trivandrum	1,86,931
Alleppey	1,16,278

Delhi

Delhi	9,14,790
New Delhi	2,76,314

HILL STATIONS

	Above sea level (ft.)
Almora (U.P.)	5,400
Bangalore (Mysore)	3,000
Bhowali (U.P.)	5,500
Cherrapunji (Assam)	4,455
Coonoor (Madras)	6,740
Dalhousie (Punjab)	7,867
Darjeeling (W. Bengal)	7,168
Gulmarg (Kashmir)	8,700
Kalimpong (W. Bengal)	3,933
Kasauli (Punjab)	6,200
Kdaikanal (Madras)	7,000
Kulu Valley (Punjab)	4,700
Lansdowne (U. P.)	6,060
Mahabaleshwar (Bombay)	4,500
Matheran (Bombay)	2,650
Mount Abu (Bombay)	4,500
Mussoorie (U.P.)	6,580
Nainital (U.P.)	6,300
Ootacamund (Madras)	7,500
Panchmarhi (M.P.)	4,500
Ranikhet (U.P.)	6,000
Ranchi (Bihar)	2,100
Shillong (Assam)	4,980
Simla (Punjab)	7,235
Chakrata (U.P.)	6,900

INDIAN BRIDGES

	feet
Sone Bridge	10,052
Godavari Bridge	9,096
Mahanadi Bridge	6,912
Vivekananda Bridge	2,610
Howrah Bridge* (1943)	2,150
Jubilee Bridge (Naihati)	1,213
Meghna Bridge	1,213
Dufferin Bridge (Banaras, 1887)	3,578
Curzon Bridge (Allahabad, 1905)	3,200
Tapti Bridge (1872)	2,556
Izat Bridge (Allahabad, 1912)	6,830
Naini Bridge (1865, Allahabad)	3,235
Jumna Bridge (1866, Delhi)	2,640
Malaviya Bridge (1887, Banaras)	..
Sutlej Bridge	4,210
Alexandra Bridge (Chenab)	9,088
Narbada Bridge (1881)	4,687
Hooghly Bridge	1,213
Ravi Bridge (Pathankot-Jammu)	2,800
Ganga Bridge (Mokameh)†	6,000

---

* Largest cantilever span bridge in India and the third largest cantilever bridge in the world.

† Under construction.

NATIONAL PARKS & GAME SANCTUARIES

Hazaribagh National Park (Bihar).

Shivapuri National Park (Madhya Bharat).

Jaldapara Game Sanctuary (W. Bengal) mainly for rhino & buffalo.

Wild Life Sanctuary, Garumara (Jalpaiguri, W. Bengal).

Bandipur Game Sanctuary, 48 m. from Mysore.

Pariyar Wild-life Sanctuary, Travancore.

Sonai-Rupa Game Sanctuary, Darrang (Assam).

Ramganga National Park, Uttar Pradesh.

Kanheri National Park, Kanheri Valley, Bombay.

Mudumalai Game Sanctuary, Nilgiri, Madras.

Tirap Frontier Tract National Park, Assam.

Praba Buffalo Sanctuary, N. Lakhimpur (Assam).

Orang & Laokhowa Reserves (Darrang & Nowgong).

Manas Game Sanctuary, Kamrup (Assam).

Khiziranga Game Sanctuary, Sibsagar (Assam).

TEN HIGHEST PEAKS OF HIMALAYAS

	Height	*Climbed on*	*Expedition*
Everest	29,015	May, 1953	British
K^2	28,250	July, 1954	Italian
Kanchenjunga	28,146	May, 1955	British
Lhotse	27,890	May, 1956	Swiss
Makalu	27,824	May, 1955	French
Cho Oyu	26,967	Oct., 1954	Austrian
Annapurna	26,926	June, 1950	French
Dhawalgiri	26,795	Unclimbed	.. ..
Mansalu	26,656	May, 1956	Japanese
Nanga Parvat	26,029	July, 1955	Austrian-German

ATTEMPTS ON EVEREST

1920—Permission given by Dalai Lama to climb Everest from Tibetan side

1921—1st Expedition under Lt. Col. Howard Bury, reached North Col. for the first time

1922—Expedition under J. G. Bruce 27,300

1924—Exp. under Gen. Bruce and afterwards Norton* 28,150

1933—Expedition under Hugh Ruttlege 28,150

1934—M. Wilson's lone attempt in which he lost his life.

1935—Eric Shipton's reconnaisance expedition only

1936—Exp. by Hugh Ruttlege given up due to bad weather.

1938—Light mobile expedition by Tilman given up for atrocious weather

1951—Reconnaisance expedition by Shipton to discover route from South Col. from the head of CWM through Nepal

1952—Swiss Expedition by Dr. Wyss Dunant (reached by Lambert & Tensing) 28,215

1952—2nd Swiss Exp. by Chevalley (post-monsoon) 26,686

1953—British Exp. by Col. John Hunt reaches Everest on 29-5-53 (*reached by Tensing and Hillary*) 29,015

1956—Swiss Exp. reaches Everest twice, on 23rd May and on 24th May.

ATTEMPTS ON KANCHENJUNGA, 28,146 ft.

A. Crowley	1905
E. P. Parmer	1929
Paul Bauar	1929
J. Dyhrenforth	1930
Br. Expedition led by Dr. Charles Evans reached the summit	1955

CONQUEST OF MAJOR HIMALAYAN PEAKS

Trisul by Longstaff (1907)	23,406
Do. by Oliver & K. Singh (1933)	
Do. by Indian Expedition (1951)	
Jonsong Peak by Prof. Dyhrenforth (1930)	24,472
Kabru by W. W. Graham, 1883	
Annapurna by French Expedition, leader M. Hertzog (1950)	26,926
Tirich Mir by Norwegian Expedition (1950)	25,263
Satopanth by Roch & Sutter (1947)	23,240
Ramthang Peak by Prof. Dyhrenforth (1930)	23,200
Mukut Parbat by A. E. Riddiford (1951)	23,760
Mount Kamet by F. S. Smythe (1931)	25,447
Nanda Devi by Tilman & Odell (1936)	25,645
Dunagiri by A. Roch (1939)	23,772
Kedarnath by Roch & Sutter (1947)	22,772
Bandar Punch by J. T. M. Gibson (1950)	20,720
Panch Chuli Peak by P. Nikore (1953)	22,650
Makalu by French Expedition led by J. Franco	27,824
*K*² (Godwin Austen) by Italians (1954)	28,250
Mt. Cho-Oyu in Nepalese Himalayas by Austrian Expedition (1955)	26,876
Nanga Parvat by German Aust., Exp. (1953)	26,029
Mt. Nunkun in Jammu & Kashmir by French Exp. (1953)	23,410
Mansalu by Japanese Expedition (1956)	26,456
Makalu by French Expedition, (1955)	27,824
Kanchenjunga by British Expedition (1955)	28,146
Mt. Lhotse by Swiss Expedition (1956)	27,970
Mt. Cho-Oyu by Indian Expedition (1958)	26,876

HIGHEST INDIAN STRUCTURES

	feet
* Kutub Minar	238
Tower of Victory, Chitore	122
†Victoria Memorial	182
Ochterloney Monument, Cal.	152

---

* 379 steps.
† from ground level to the base of the victory figure.

4 minarets of Taj (each)	137
Taj Mahal	178
Char Miner (Hyderabad)	186
Gol Gumbaz (Bijapur) ..	198
Gopuram of Madurai Temple (Largest one) ..	152
Buland Darwaja (Fatehpur Sikri)	176
Rajabai Tower (University), Bombay ..	260
Calcutta High Court ..	180

OLD & NEW NAMES OF PLACES

Old Names	*New Names*
Calicut ..	Kozhikode
Cawnpur ..	Kanpur
Bilsa (**Bhopal**)	Bidisa
Muttra ..	**Mathura**
Benares ..	Varanasi
United Provinces ..	Uttar **Pradesh**
Central Provinces ..	Madhya Pradesh
Hyderabad & Andhra ..	Andhra Pradesh
Travancore- Cochin ..	Kerala
Amraoti ..	Amaravati
Cocanada ..	Kakinada
Conjeeveram	Kancheepuram
Ellichpur (M.P.)	Achalpur
Ellore	Eluru
Jubbulpur ..	Jabalpur
Mandi Phul (Pepsu) ..	Pool (Mandi)
Masulipatam	Bandar
Mayaveram (Madras) ..	Mayuram
Ajmere-Merwara ..	Ajmer
Vizagapatnam	Visakhapatnam
Trichinopoly	**Tiruchirapally**
Bezwada ..	Vijayawada
Ganges ..	Ganga
Madura ..	Madurai
Banaras ..	Varanasi
Shiyali ..	Shirkali
Ramnad (Madras) ..	Ramanathapuram
Sadulgarh (Rajasthan)	Hanumangarh
Saugor	Sagar
Tinnevelly ..	Tirunelveli
Tiruvadi (Madras) ..	Tiruvaiyaru
Mau (Jhansi)	Mau Rampur
Mau (U. P.) ..	Maunath Bhanjan
Chitaldurg ..	Chitra Durga
Deoria ..	Krishnagarh
Tanjore ..	Thanjavur
Chitor ..	Chitorgarh
Navnagar ..	Jamnagar

INDIAN FELLOWS OF THE ROYAL SOCIETY

A. Carsetji.
S. Ramanujam.
J. C. Bose.
Megnad Saha.
C. V. Raman.
Birbal Sahani.
K. S. Krishnan.
S. Bhatnagar.
H. J. Bhabha.
S. Chandrasekhar.
P. C. Mahalanobis.
D. N. Wadia (1957)
S. N. Bose (1958)
Dr. S. K. Mittra ('58)

INDIANS IN THE BRITISH PARLIAMENT

Sir Muncherjee **Bhowanagree** (Conservative).

Dadabhai Naoroji (Liberal).

Sapurji Saklatvala (Communist).

Lord Sinha of Raipur (House of Lords).

Lord Sinha, Second Baron of Raipur (House of Lords).

INDIAN PRIVY COUNCILLORS

Syed Ameer Ali.
Sir B. C. Mitter.
1921—V. S. Srinivasa Sastri.
1926—Lord Sinha.
1930—Sir D. F. Mulla.
1931—Sir Shadilal.
1934—Sir Tej Bahadur Sapru.
1934—H. H. The Aga Khan.
1936—Sir Akbar Hydari.
1939—Dr. M. R. Jayakar.
1941—Sir C. Madhavan Nair.

INDIAN PEERS OF THE BRITISH REALM

Sinha, Aroon Kumar (b. 1887).
Heir—Hon'ble Sudhindra Sinha (b. 1921).

INDIAN MEMBER OF THE U.S. CONGRESS

Dilip Sing Saund (Democrat)

NOBEL PRIZE WINNERS

1913—Rabindranath Tagore, (*Literature*).
1930—Sir C. V. Raman, (*Physics*).

LENIN PEACE PRIZE

1952 .. Dr. Safiuddin Kitchlu
1953 .. Major-General S. S. Sokhey
1958 .. Sir C. V. Raman

BHARAT RATNÀ

(*The highest award of the Indian Union for exceptional work in the advancement of art, literature and science and in recognition of public service of the highest order*).

1954 C. Rajagopalachari
„ S. Radhakrishnan
„ C. V. Raman
1955 Bhagwan Das
„ M. Visvesvaraya
„ Jawaharlal Nehru
1957 Gobind Ballabh Pant
1958 D. K. Karve.

PADMA VIBHUSHAN

(*The award for exceptional and distinguished service in any field, including service rendered by the Government Servants*).

1954 B. G. Kher
„ V. K. Krishna Menon
„ Nandalal Bose
1954 S. N. Bose
„ Zakir Hussain
1955 B. G. Karve
„ J. R. D. Tata
1956 Fazl Ali
„ Sm. Jankibai Bazaz
„ C. M. Trivedi
1957 Sri Prakasa
„ M. C. Setalvad
„ G. D. Birla.

WINNERS OF PARAM VIR CHAKRA

(*India's highest military decoration*)

Major Somnath Sharma, *4th Bn. Kumaon Regt.* (*Posthumous*), 1947.

2/Lt. R. R. Rane, *Corps of Engineers*, 1948.

Com. Hav-Major Piru Singh, *Rajputana Rifles*, (*Posthumous*), 1948.

L/Nk. Karam Singh, *Sikh Regiment*, 1948.

Naik Jadunath Singh, *Rajput Regiment*, 1948.

GOVERNOR-GENERALS OF INDIAN UNION

Lord Louis Mountbatten 1947-48.
C. Rajagopalachari 1948-49.

PRESIDENT OF INDIA

Dr. Rajendra Prasad (*1st term*) 1950—1957
Dr. Rajendra Prasad (*2nd term*) 1957—

VICE-PRESIDENT OF INDIA

Dr. S. Radhakrishnan (*1st term*) 1952—1957
Dr. S. Radhakrishnan (*2nd term*) 1957—

INDIAN PARLIAMENT

Lok Sabha : Speakers—G. V. Mavlankar 1952-56.
—Anantasayanam Iyengar 1956—
Rajya Sabha : President—Dr. S. Radhakrishnan 1952—

MILITARY CHIEFS OF INDIA AFTER INDEPENDENCE

Army

General Sir R. M. Lockhart 1948
General F. R. R. Bucher 1948.
General K. M. Cariappa 1949
General Maharaj Rajendra Singji 1953
General S. M. Srinagesh 1955
General Thimmaya 1957

Navy

Vice-Admiral Sir Edward Perry 1948
Vice-Admiral C. T. M. Pizey 1951
Vice-Admiral S. H. Carlill 1955-58
Vice-Admiral R. D. Katari 1958

Air

Air Marshal R. J. Chapman 1948
Air Marshal G. E. Gibbs 1951
Air Marshal S. Mukherjee 1954

INDIAN NATIONAL CONGRESS PRESIDENTS
(First Session, 1885)

1885 Bombay—W. C. Bonnerji.
1886 Calcutta—D. Naoroji.
1887 Madras—B. Tyabji.
1888 Allahabad—George Yule.
1889 Bom.—Sir W. Wedderburn.
1890 Calcutta—Sir P. Mehta.
1891 Nagpur—P. Ananda Charlu.
1892 Allahabad—W. C. Bonnerji.
1893 Lahore—D. Naoroji.
1894 Madras—Alfred Webb.
1895 Poona—S. N. Banerji.
1896 Calcutta—R. M. Sayani.
1897 Amraoti—C. Sankaran Nair.
1898 Madras—A. M. Bose.
1899 Lucknow—R. C. Dutt.
1900 Lahore—N. G. Chandravarkar.
1901 Calcutta—Dinshaw Wacha.
1902 Ahmedabad—S. N. Banerji.
1903 Madras—Lalmohan Ghose.
1904 Bombay—Sir H. Cotton.
1905 Benares—G. K. Gokhale.
1906 Calcutta—D. Naoroji.
1907 Surat—R. B. Ghose.
1908 Madras—R. B. Ghose.
1909 Lahore—Pt. M. M. Malaviya.
1910 Allahabad—Sir W. Wedderburn.
1911 Calcutta—Bishen N. Dar.
1912 Patna—R. N. Mudholkar.
1913 Karachi—Sayed Muhammad.
1914 Madras—B. N. Bose.
1915 Bombay—Sir S. P. Sinha.
1916 Lucknow—A. C. Majumdar.
1917 Calcutta—Annie Besant.
1918 Bom. (Spl.)—Hasan Imam.
1918 Delhi—Pt. M. M. Malaviya.
1919 Amritsar—Motilal Nehru.
1920 Cal. (Spl.)—Lala Lajpat Rai.
1920 Nagpur—C. Vijayaraghavachariar.
1921 Ahmedabad—Ajmal Khan.
1922 Gaya—C. R. Das.
1923 Delhi (Spl.)—A. K. Azad.
1923 Cocanada—Mahomed Ali.
1924 Belgaum—M. K. Gandhi.
1925 Cawnpore—Sarojini Naidu.
1926 Gauhati—Srinivasa Iyengar.
1927 Madras—Dr. M. A. Ansari.
1928 Cal.—Pt. Motilal Nehru.
1929 Lahore—J. L. Nehru.
1931 Karachi—Sardar V. Patel.
1932 Delhi—Seth Ranchhodlal.
1933 Cal.—Nellie Sen Gupta.
1934 Bombay—Rajendra Prasad.
1935 Lucknow—J. L. Nehru.
1937 Faizpur—J. L. Nehru.
1938 Tripuri—Subhas Bose.
1939 Subhas Bose.
1940 Ramgarh—A. K. Azad.
1946 J. L. Nehru.
1946 Meerut—J. B. Kripalani.
1947 Dr. Rajendra Prasad.
1948 Jaipur—Dr. P. Sitaramiyya.
1950 Nasik—P. D. Tandon.
1951 Meerut—J. L. Nehru.
1952 Hyderabad—J. L. Nehru.
1953 Kalyani—J. L. Nehru.
1955-56 Avadi (60)—U. N. Dhebar.
1956 Amritsar (61st)—U. N. Dhebar.
1957 Gauhati (62)—U. N. Dhebar.

INDIAN CHRONOLOGY

B.C.

3000—Indus Valley civilization.
2900 to 1500—Period of Vedic civilization.
563-483—Birth and death of Buddha.
540-468—Traditional dates of birth and death of Mahavira.
377—Buddhist Council at Baisali.
326—Alexander's invasion of India.
324—Rise of Maurya dynasty.
305—Seleucus Nicator defeated by Chandra Gupta Maurya.
273-232—Reign of Asoka.

Indian Chronology—(*Contd.*)

259—Missionaries sent to foreign lands by Asoka.
58—Beginning of Vikrama era.
A.D.
78—Accession of Kanishka.
320-500—Gupta dynasty; Golden Age of Indian art, science and literature.
320—Accession of Samudra Gupta.
380-415—Reign of Chandragupta II (Vikramaditya).
405-11—Fa Hien travels in Gupta Empire.
450-457—Hun invasions.
480-90—Break up of Gupta Empire.
606-647—Reign of Harsavardhan, king of N. India.
629-645—Hiuen Tsang's travels in India.
711—Arab conquest of Sind by Mohammed-bin-Qasim.
731—Yasovarman's embassy to China.
735—First Parsi settlement in India.
750—Gopala elected king of Banga-gauda (Bengal).
1000-1026—Muslim invasions of India by Mahmud of Ghazni.
1050—Atisa Dipankara sent on Buddhist mission to Tibet.
1192—Defeat and death of Prithviraj, the last Rajput King of Delhi.
1190-1290—Establishment of Muslim rule in North India: Reign of Slave Kings.
1228—Conquest of Assam by the Ahoms.
1231-32—The Kutub Minar.
1236—Death of Iltutmish—Accession of Raziyya.
1236—Foundation of Vijayanagar Kingdom.
A.D.
1320-1414—Tughlak Sultans of Delhi.
1334-1342—Iban Batuta in India.
1347—Foundation of Bahmani Kingdom of Deccan.
1398—Invasion of Timur.
1451-1526—Lodi Sultans of Delhi.
1469—Birth of Guru Nanak.
1486-1533—Chaitanya, Saint of Bengal.
1494—Foundation of Agra by Sikandar Lodi.
1498—Vasco da Gama reaches Calicut.
1510—Portuguese capture Goa.
1526—Establishment of Mughal Empire by Babar.
1538-1545—Reign of Sher Shah.
1565—Battle of Talikota—overthrow of the Vijayanagar Kingdom.
1556-1605—Reign of Akbar.
1564—Abolition of *Jizya.*
1571—Fatehpur Sikri founded.
1586—Annexation of Kashmir by Akbar.
1597—Death of Rana Pratap.
1600—East India Company founded under Royal Charter.
1605—Death of Akbar.
1612—First English Factory at Surat.
1627-1657—Reign of Shah Jahan.
1627—Birth of Sivaji.
1634—*Firman* permitting the English to trade in Bengal.
1658—Coronation of Aurangzeb.
1666—Sivaji's visit to Aurangzeb's court and his imprisment and escape.
1668—First French Factory at Surat.
1675—Execution of Tegh Bahadur, 10th Guru of the Sikhs.
1680—Death of Sivaji.
1686-87—Fall of the Kingdoms of Bijapur & Golconda.

Indian Chronology—(*Concld.*)

1698—The English obtain Zamindari of the three villages of Sutanati, Kalikata and Gobindapur—nucleus of Cal.
1707—Death of Aurangzeb.
1734—Nadir Shah sacks Delhi.
1757—Battle of Plassey.
1761—Third battle of Panipat.
1765—Grant of Dewani of Bengal, Bihar and Orissa to E. I. Co.
1770—Famine of Bengal.
1774-95—Warren Hastings—Governor General of India.
1775—Execution of Nand Kumar.
1780—Ranjit Singh establishes a Sikh Empire.
1784—Pitt's India Bill passed by Br. Parliament.
1790—Third Mysore War.
1793—Permanent settlement of Bengal.
1799—Death of Tipu Sultan. Partition of Mysore.
1829—Brahmo Samaj founded by Raja Rammohan Roy.
1829—Prohibition of *Sati*.
1833—Death of Raja Rammohan Roy.
1935—Introduction of English as medium of instruction.
1839—Death of Ranjit Singh.
1839-42—Anglo-Afgan War.
1853—Opening of Railways and Telegraph.
1854—Wood's Despatch on Education.
1856—Annexation of Oudh.
1857—Indian Mutiny.
1858—Transfer of India from Company to the Crown.
1869—Birth of Mahatma Gandhi.
1874—Great Famine of Bengal
1875—Arya Samaj founded by Dayananda Saraswati
1885—First Meeting of the Indian National Congress.
1905—Partition of Bengal.
1906—Foundation of the Muslim League.
1911—Partition of Bengal revoked.
1914—Gandhi returns to India from South Africa.
1919—Montagu-Chelmsford Reforms; Jalianwalabag massacre at Amritsar (13th April).
1920—Non-Co-operation movement in India started.
1925—Death of C. R. Das.
1930-34—C. D. Movement—1st session of the Round Table Conference.
1931—Gandhi-Irwin Pact.
1935—Govt. of India Act 1935.
1937—Inauguration of Provincial Autonomy. Congress Ministries in majority of Provinces.
1942—Cripps Mission—Quit India Movement.
1943—Bengal Famine.
1946—Cabinet Mission's Plan—Interim Government with Jawaharlal Nehru as Prime Minister.
1947—Partition of India—India becomes independent—Kashmir attacked by Pakistan.
1948—Martyrdom of Mahatma Gandhi (Jan. 30).
India appeals to U.N to stop aggression by Pakistan in Kashmir (Jan. 2).
1949—India's new Constitution passed into law.
1950—India becomes Republic (26th Jan.).
1951—First Five-Year Plan launched.
1951—First general election in independent India.
1954—French Settlements in India merged to India.
1956—Indian States re-organised on linguestic basis.

NOTABLE INDIANS

	Born	*Died*
Bal Gangadhar Tilak	1856	1920
A. M. Bose	1847	1906
Sir K. Seshadri Iyer	1845	1901
M. G. Ranade, *Social*		
Dr. Mahendralal Sarkar	1833	1904
Sir J. N. Tata	1839	1904
Devendranath Tagore	1817	1905
W. C. Bonerjee, *1st. Cong. Prest.*	1844	1906 (19 July)
P. Ananda Charlu	1842	1908
Sir V. Bashyam Iyengar	..	1908
Lalmohan Ghos, *Cong. Prest.*	1849	1909
R. C. Dutt, *Congress President*	1848 (13 Aug.)	1909 (30 Nov.)
Girishchandra Ghosh, *Dramatist*	1843	1911
G. K. Gokhale, *statesman, founder of Servants of India Society*	1866	1915
Sir Pherozeshah Mehta	1845	1915
S. Ramanujam, *Mathematician*	..	1920
Sir Rashbehari Ghose	1845	1921
Ambica C. Majumdar, *Congress President*	1851	1922
Aswini Kumar Dutta	1856	1923
Sir N. G. Chandavarkar	1855	1923
Sir Asutosh Mukherjee	1864 (29 June)	1924 (25 May)
C. R. Das	1870 (5 Nov.)	1925 (16 June)
Sir S. N. Banerjee	1848	1925
Sir R. G. Bhandarkar	1873	1925
Lala Lajpat Rai, *Indian Patriot*	1865	1928
Lord Sinha of Raipur	1863	1928
Syed Ameer Ali	1849	1929
Pt. Matilal Nehru	1861 (6 May)	1931 (6 Feb.)
J. M. Sen Gupta	1885	1933 (23 July)
Sir Ali Imam	1869	1932
V. J. Patel	..	1933
Sir Sankaran Nair	..	1933
Dr. M. A. Ansari	1880	1936
Sir R. N. Mookerjee	1854	1936
Sir J. C. Bose	1858 (30 Nov.)	1937 (23 Nov.)
Sir Muhammad Iqdal	1877	1938
Sir Brojendranath Seal	1864	1938
Rabindranath Tagore	1861 (7 May)	1941 (7 Aug.)
Sir Tej Bahadur Sapru	1875	1948
Mahatma Gandhi	1869 (2 Oct.)	1948 (30 Jan.)
Sarojini Naidu	1879 (13 Feb.)	1949 (1 March)
Sri Aurobindo	1872 (15 Aug.)	1950 (5 Dec.)
Sardar V. Patel	1875	1950 (15 Dec.)
Kristodas Pal, *Politician*	1834	1884
Keshab Ch. Sen, *Religious Reformer*	1838	1884

Notable Indians—(*Contd.*)

Syed Ahmed Khan	1817	1898
Bipin Chandra Pal	1855	1932
Dr. Shyama P. Mukerjee	1901	1953 (23 June)
Dr. Sarat Ch. Chatterjee *Bengali Novelist*	1876 (15 Sept.)	1938 (16 Jan.)
Srinivasa Sastri	1869	1946
Dadabhai Naoroji	1825	1917
Iswar Chandra Vidyasagar	1820 (26 Sept.)	1891 (29 July)
Raja Rammohan Roy	1774	1833
Ramkrishna Paramhamsa	1834 (20 Feb.)	1886 (16 Aug.)
Dayanand Saraswati	1824	1883
Bankim Ch. Chatterjee, *Bengali Novelist*	1838 (26 June)	1894 (8 April)
Guru Nanak	1460	1531
Rashbehari Bose, *Famous Revolutionist*	1870	1944
Swami Vivekananda	1862 (12 Jan.)	1902 (2 July)
Michael Madhusudhan Dutt	1824 (25 Jan.)	1873 (29 June)
Taru Dutt, *Indian Poetess*	1856	1877
Abanindranath Tagore	1871	1951
Sister Nevedita	1867 (26 Oct.)	1911 (13 Oct.)
Pandit M. M. Malaviya	1861 (26 Dec.)	1946 (12 Nov.)
Rajendralal Mitra, *Historian*	1842 (15 Feb.)	1891 (26 July)
Subhas Chandra Bose	1897 (23 Jan.)	1945 (18 Aug.)
Surendranath Banerjee	1848 (10 Nov.)	1925 (6 Aug.)
Ravi Varma, *Famous Artist*	1848 (29 April)	1906 (Sept.)

FIRST IN INDIA

Largest Lake—Wular Lake, Kashmir.

Highest Peak—Nanda Devi (25,645 feet).

Largest populated City—Greater Calcutta (45,78,071).

Largest State—Bombay.

Highest Waterfall—Gersoppa Waterfall, Mysore (960 ft. high).

Largest Forest State—Assam.

Highest rainfall—Cherrapunji, 426 in. average yearly.

Largest Delta—Sundarbans Delta (8,000 sq. miles).

Longest Cantilever Span Bridge—Howrah Bridge.

Largest Cave Temple—Ellora, Hyderabad.

Longest Corridor—Rameswaram Temple Corridor (4,000 ft. long).

Largest Mosque—Jumma Masjid, Delhi.

Longest Bridge—Sone Bridge (10,052 ft. long).

Highest Dam—Bakhra Dam (680 ft. High).

Largest Sugar-cane producing area—Uttar Pradesh.

Most literate part of India—Kerala.

Longest electric train service—Bombay to Poona.

First in India—(*Concld.*)

Highest Gateway—Buland Darwaja (Fatehpur Sikri, 176 ft.)

Tallest Statue—Statue of Gomateswar (Mysore), 57 ft. high.

Longest Platform—Sonepur Platform (2,415 feet).

Longest Road—Grand Trunk Rd. (1,500 miles).

Highest Tower—Kutub Minar, Delhi.

Largest Dome—Gol Gambuz, Bijapur.

Largest Fair of Animals—Sonepur fair.

Biggest Zoo—Zoological Gardens, Alipur, Calcutta.

Largest Museum—Indian Museum, Calcutta.

Most Populated State—Uttar Pradesh.

Most-thickly populated State—Delhi.

Longest Tunnel—Jwahar Tunnel, linking Punjab and Kashmir, 1¾ mile long, Asia's longest road tunnel.

Longest Dam—Hirakud Dam

FIRST BEGINNINGS IN INDIA

1825—First issue of postal stamp in India in Sind.

1851—First official telegraph line opened for traffic between Calcutta and Diamond Harbour, October.

1853—First Indian Railway between Bombay and Thana, 16th April.

1854—First postage stamp on all India basis issued on 1st Oct.

1897-98—First electric plant installed at Darjeeling.

1911—First air-mail in India and the world from Bamrauli to Naini (Allahabad) 6 miles.

1925—First electric train between Bombay and Kurla.

1929—First issue of air-mail stamp in India and the world.

FIRST AMONG INDIANS

Indian Governor—Lord Sinha of Raipur.

F.R.S.—A. Carsetji.

Congress President—W. C. Bonnerjee.

Nobel Prize winner—Rabindranath Tagore.

I.C.S.—Satyendranath Tagore.

Bar-at-Law—J. M. Tagore.

Judge, High Court—Ramaprosad Roy.

Member, Viceroy's Executive Council—Sir S. P. Sinha.

Member, India Council—Sir K. G. Gupta.

Peer of the Br. Realm—Lord Sinha.

1st Indian to stand for the membership of the British Parliament—Lal Mohon Ghosh.

Wrangler, Cambridge University—A. M. Bose.

1st Woman President of U.N.—Vijayalakshmi Pandit.

1st Woman Minister of the Legislative Assembly—Mrs. Vijayalakshmi Pandit, Minister of U.P.

Woman Governor—Sarojini Naidu.

Woman President of the Congress—Mrs. Sarojini Naidu.

1st in I.C.S. Exam.—Sir Atul Chatterjee.

Member, British Parliament—Dadabhai Naoroji.

First Among Indians—(*Concld.*)

Winner, Victoria Cross—Khudadad Khan.
Member, Privy Council—Syed Ameer Ali.
Member, House of Lords—Lord Sinha.
Commander-in-Chief—General Cariappa.
I.M.S.—Dr. Goodeve Chuckravarti.
Woman M.A.—Chandramukhi Bose.
Test cricket player—K. S. Ranjitsinji.
1st Woman Barrister—Mrs. Cornelia Sorabji.
Advocate-general—Sir V. Bashyam Iyengar.
Member of the U. S. Congress—D. S. Saund.

HILL STATIONS

Almora—in Kumaun Hills. Altitude 5,400 ft. above sea level. Mean annual rainfall 45.55 inches ; It is about 30 miles from Ranikhet and 82 miles from Kathgodam by a good motor road. From Almora some of the highest peaks of the western Himalayas can be seen against the horizon. The main attraction for hickers is the famous Pindari glacier. Almora to Pindari glacier is 98 miles, the glacier is about two miles long, 300 to 400 yards broad and 13,000 to 14,000 ft. above sea level. The glacier which is named after the Pindari river is formed by the heavy snows on the peaks of Nanda Devi and Nanda kot.

Bhowali—is situated at a height of about 5,600 feet, and is only seven miles from Nainital. Bhowali is famous for its T. B. Sanatorium and is export centre for the famous Himalayan fruits.

Bhimtal—Just a little over 14 miles from Nainital is Bhimtal, enveloping a pretty lake which provides an excellent fishing centre.

Bangalore—The cantonment is the largest in South India. Bangalore has big industries, large parks and fine public buildings. Altitude 3,000 ft. above sea level.

Coonoor—on the Nilgiri Hills in the Madras State: Altitude 6,000 ft. above sea level. Nearest railway station is Coonoor. It is reached from Ootacamund by rail.

Chakrata (6,900 ft.)—is 21 miles from Mussoorie on the hill-road to Simla. It is surrounded by huge forests and lovely walks.

Cherrapunji—is 30 miles south of Shillong and receives more rainfall than any other place in the world ; the annual average being 426 inches. The nearest railway station is Pandu ; altitude 4,455 ft.

Nainital—is a hill sanatorium in Kumaun Hills, picturesquely situated on the shores of a beautiful lake. This lake has a superfical area of about 120.5 acres and a mile in diameter. Altitude 6,300 ft. It is only 22 miles from railhead at Kathgodam, which in turn is connected with Bareilly, Lucknow and Agra by direct train services. A car journey from Kathgodam to Nainital takes an hour and a half.

Mussoorie—is a hill sanatorium, on the southern slopes of the Himalayas, 22 miles from Dehra Dun, overliiking the beautiful Doon Valley. It is 168 miles from Delhi by a good motor road. Altitude 6,580 ft. above sea level. Nearest railway station is Dehra Dun.

Dharmsala—This is the headquarters of the Kangra district and a beautiful little hill resort in the midst of wild and picturesque surroundings. It is connected with the railhead at Pathankot by an excellent motor road (56 miles).

Lansdowne—is situated in Garhwal about half way between Mussoorie and Nainital. It commands a wonderful view of snows, the Badrinath block being nearest. It is reached by Northern Ry. from Kotdwara *via* Najibabad junction and there is good service of motor cars, a distance of 26 miles ; altitude 6,060 feet.

Mukteshwar—A beauty spot in the Kumaun Hills. It offers a remarkable view of the surrounding valleys and the mountain gradually rising up to their snowcapped glory. The Government of India Veterinary Research Institute is located here.

Mount Abu—is reached by a good motor road from Abu Road railway station. The range is about 50 miles in circumference. The climate is very healthy and delightfully cool. The average temperature is 60°. Altitude 4,500 ft. above sea level. It is a place of pilgrimage for Jains, for here are celebrated Dilwara temples containing some of the finest specimens of Jain carving in India, whilst the temples themselves are prominent alike for their beauty and as typical examples of Jain architecture.

Pindari Glacier—is famous all over the world. It is five days' march from the motor-head at Almora. Situated at the heart of the Himalayas, the Pindari Glacier is more magnificent than Jang Frau of Switzerland.

Gulmarg—is at a distance of 30 miles from Srinagar, and is one of the finest pleasure resorts of Kashmir, popular for skating, trekking and other winter sports.

Dalhousie—Altitude 7,867 ft. above sea level and 52 miles from Pathankot railway station reached by motor road. From Delhi it is a night's journey. It consists of five distinct hills. The Thera Mall with a level circuit of 1¼ miles surrounding the central hillock is a favourite with the visitors.

Darjeeling—Altitude, 7,168 ft. above sea level, magnificent snow views of Mount Everest (29,002 ft.) and Kanchenjunga (28,104 ft.), The minimum temperature in winter is about 30°. It is the centre of a large tea district. It is 369 miles from Calcutta.

Kotagiri—is 18 miles from Ooty with an altitude of 6,500 ft.

Kalimpong—Hill station near Darjeeling. It is also reached from Siliguri by motor (41 miles). 4,000 ft. high.

Kodaikanal—A hill station in Southern India on the upper range of the Pulney Hills in the Madurai district. It is 7,000 ft. above the sea level. The nearest railway station is Kodaikanal Road.

Kasauli—A hill station in the Simla district, situated on the crest of a hill overlooking Kalka Valley and the plains of the Punjab, 23 miles from Kalka by motor road. For years Kasauli has been the centre of scientific research. It has the first Pasteur Institute in India established in 1955. Later the Central Research Institute for the manufacture of vaccines and sera and antidotes of snakebite and a food laboratory were also established.

Kulu & Kangra Valleys—lie at the foot of the Dhaula Dhar Range of the Himalayas. Kangra, Jogindernagar, Chamba, Dharmsala, Dalhousie and Kulu are some of the chief holiday resorts. Kulu and Kangra valleys are known for their orchards and tea plantations. The valley is about 4,700 ft. high. The main route is *via Pathankot.* Pathankot to Kulu is a distance of 175 miles by motor. The valley is called the Valley of the Gods due to every village having its own God.

Ootacamund—is the leading hill station of South India, situated in the heart of Nilgiris. Altitude 7,220 ft. above sea level. Mean annual day temperature is 57·50°F. The place is reached from Madras by Blue Mountain Express upto Mettupalayam, from where a hill railway conveys to Ooty over a distance of 30 miles.

Mahabaleswar—Principal hill station of the Bombay Presidency and summer retreat of the Bombay Government. Altitude 4,500 ft. above sea level. Nearest railway station is Poona, 75 miles.

Matheran—Nearest hill station of Bombay. It is only 2,650 ft. high.

Chail—lying on a ridge covered with a thick forests, Chail is connected with Simla by an almost best fairweather motor road. It is a delightful little hill station. There is a regular bus service between Kalka and Chail *via* Kandaghat.

Pachmarhi—in Hosangabad, Madhya Pradesh, is 32 miles from Pipariya Station on Central Ry. The place is only two hours' distance by an excellent motor road from the railway station of Pipariya. Pachmarhi rises 3,500 ft. above sea level. Pachmarhi derives its name from the "Panch marhi" or 'five huts'—actually five caves on a little hillock. Hindu tradition ascribes them to be the five Pandava brothers who were supposed to have rested there in the course of their wanderings. But probably the caves were constructed in earlier Buddhist times.

Ranikhet—is about 40 miles from Nainital and 52 miles from the railway terminus of Kathgodam. It is 6,000 ft. high. Set amidst pine-clad hills, it is more or less a veritable garden town and commands an excellent view of the snows. Its greatest attraction is the wonderful view it commands of the Central Himalayan range extending from western Nepal to the snowy heights of Badrinath and Tehri Garhwal further west.

Ranchi—Altitude 2,100 ft. above sea level. Mean annual day temperature is 74·9°F. Nearest railway station is Ranchi.

Shillong—is on the Khasi and Jaintia Hills. It is the headquarters of the Assam Government. Altitude 4,980 ft. above sea level. Average temperature in midsummer rarely reaches 80°F. Cherrapunji, 30 miles south of Shillong, holds the world record for rainfall, average 426 inches per annum (in 1861 the rainfall at Cherrapunji was 905 inches). Nearest railway station is Pandu (68 miles).

Simla—is perched on the skirts of the lower Himalays at a height of 7,235 feet. It is reached by mountain railway which connects Kalka and Simla. Mean temperature is 55°F, and annual rainfall is 70". It is now the capital of Himachal Pradesh.

PLACES OF INTEREST IN INDIA

Agra—Famous for Taj Mahal and Agra Fort which contain all the glories of Mughal Empire, such as Dewani Khas, Moti Masjid, Jasmine Tower, Dewani-i-am, also tomb of Akbar at Sikandra and Itmud-ud-Danla.

Amarnath—Situated at a height of nearly 13,000 ft. in Kashmir where thousands of Hindus make pilgrimage in August. There is a motor service from Srinagar upto Pahalgam (7,200 ft.), 60 miles from Kashmir where motor road ends. The cave is about 50 ft. high and 50 ft. deep situated between two huge mountains known as Kailash and Bhaira. At the back of the cave are several ice stalagmites in the shape of *lingams*—the frozen image of gods Siva, Parvati, Kartik and Ganesh, all self-made images of ice.

Aurangabad—is situated 70 miles from Manmad on the Central Railway. It has world-renowned temples and monastic caves of Ellora and Ajanta. There is also the historical fort of Daulatabad, the Raoza which contains the tomb of the great Mughal Emperor Aurangazeb and the magnificent tomb of Aurangazeb's wife, Bibi-ka-Muqbara, replica of the Taj Mahal of Agra. From the city of Aurangabad all these places can be visited.

Amritsar—is situated in the north-west of the Punjab at a distance of only sixteen miles from Wagah, the outpost of the Indo-Pakistan border. It is famous for Sikh golden temple, the most sacred to the Sikhs, and the tank called the pool of immortality. The pool is enclosed by a wide marble-paved quadrangle 204 ft. long with an archway over it. In the centre of the pool is the Temple, a square building with marble inlaid walls and dome-shaped roof, under which shaded by a silken canopy lies *Granth Sahib*, the holy book of the Sikhs. It is also famous for gold and silver thread, carpets, silks and *pashmina* materials. It derived its name from the sacred tank on which the golden temple is situated. The town stands on the main route of the Northern Railway. About two furlongs from the Golden Temple is the world-famous Jalianwala Bagh.

Ajmer—A city of antiquity and celebrity. Ana Sagar Lake is famous for its picturesque surroundings. The place is famous for Darga Khwaja Sahib, the tomb of the famous Muslim saint Muin-ud-din Chishti. The shrine contains the large drums and candle-sticks taken by Akbar at the siege of Chitor and two mosques, one built by Akbar and the other by Shah Jahan. At seven miles' distance, there is Pushkar, the most sacred lake of India. Ajmer lies on the railway between Delhi and Ahmedabad.

Bijapur—is the ancient city of the famous Adil Shahi dynasty. It is now in ruins and the gigantic structure called the Gol Gambuz contains a perfect whispering gallery.

Buddha Gaya—Seven miles from Gaya is the sacred Buddhist site of Buddha Gaya, where under a *bodhi-tree*, Buddha conquered Mara and attained Buddhahood. King Asoka erected a temple near the tree. The temple at Buddha Gaya consists of a main tower, raising to a height of 180 ft. in the form of a slender pyramid.

Bhubaneswar—The new capital of Orissa State, contains the famous *Lingaraj Temple*, *Mukteswar Temple* and *Parasurameswar Temple*, and other temples such as *Bhagavati*, *Parvati*, *Anant Vasudeva*, etc. On the hills known as Udaigiri and Khandagiri, a few miles from Bhuvaneswar, are caves once occupied by Jain monks, containing remarkable carvings, the earliest of which date to the second century B.C.

Banaras—Sacred city of the Hindus, contains numerous temples. The view of the ghats is magnificient, close by is the famous Hindu University. Five miles from the city is the Saranath where in the Mrigadava or Deer Park Buddha first preached his doctrine.

Chidambaram—It is 151 miles from Madras on the Madras-Trichinopoly section of south India. The place is sanctified by the world famous temple of Nataraja or Siva in his aspect of the cosmic dancer. The inner wall of the temple has four gopurams, two of which contain perfect sculptural representations of the 108 postures relating to Natya Sastra.

Chittorgarh—Famous for the *Tower of Victory*—contains wonderful Rajput ruins. It is the old capital of Sisodhiya Rajputs, the proud descendants of the sun-god who were rulers of Udaipur. The Tower of Victory was built by Rana Kumbha in commemoration of his many victories over Mughal invaders. It lies on the direct railway route from Rutlam to Ajmer.

Delhi—Capital of India since 1911, was the capital of seven Empires. Some of the famous relics are—Red Fort with Imperial Palace of Shah Jahan, two Audience Halls, Rangmahal, the Hamam, Pearl Mosque and the Mumtaz Mahal inside it, Jumma Masjid, Kutub Minar, Ferozabad, Indraprastha, Tuglukabad etc. Other places of interest are Tomb of Humayun, famous mosques and historic city walls. It occupies a strategic position, standing at the head of the plains of the Ganges and the Indus, the headquarters of all important railway lines of India.

Fatehpur Sikri—Short distance of 24 miles from Agra, founded by Akbar in A.D. 1569 in a lonely eminence on the spot where saint Salim Chisti foretold the birth of a son of Akbar. After Akbar's death, the city was deserted within fifty years of its foundation, the reason being lack of water. Interesting places are : Imposing pile of great mosque measuring 542 ft. east and 438 ft. north and south, the tomb of Saint Sheikh Salim Chisti, houses of Akbar's wives Miriam and Jodhbhai. *Panch Mahals*—the building of five storeys, Hiran Minar, Buland Darwaza, the famous sand-stone chamber of *Diwani Khas*, etc. In the Pachisi Court, laid out in red sandstone squares, he used to play chess with the slave girls at piece. This is the city of sandstone, the specimen of the finest Mughal architecture.

Gwalior—is situated 194 miles from Delhi on the Central Railway. It has long been famous for its grand and imposing Fort.

Humpi (or Vijayanagar)—The ruins of this ancient city covering an extent of about 10 sq. miles on the south bank of Tungabhadra river near Hospet railway station on the Guntakul-Hubli section of the Southern Railway, is a witness to the rise and fall of the forgotten Hindu Empire which is said to have been the finest and the greatest in South India. Humpi is the ruins of Vijayanagar, the ancient capital of Vijayanagar Empire. The ruins are virtually a vast open air museum of Hindu monuments in the Dravidian style of architecture.

Hardwar—It is situated at the place where the Ganges issues forth from the hills on its fertilizing career. *Hari-ki-Pari* is a place of worship, which is a footmark of Vishnu imprinted on a stone into the upper wall of the ghat.

Jaipur—The most typical Hindu city built of pink stone, was founded in 1728 by Sawai Jai Singh II. Its avenues and boulevards cut each other at right angles, dividing the city into straight blocks. There is also the famous observatory built about 1718 by the Maharaja Sawai Jai Singh. *Hawa Mahal, Ram Niwas gardens, Albert Hall and Museum* are the interesting places to visit. Seven miles from Jaipur is Amber, a, deserted city with an old royal palace overlooking the lake at the entrance to a rocky mountain gorge where Rajput architecture can be seen at its best. Jaipur is famous for brass works, stone carving, ivory and sandalwood work, etc.

Jabalpur—616 miles from Bombay with an elevation of 1,362 ft. The Marble Rocks are situated 13 miles from Jabalpur. These rocks are magnesium limestone rocks over 100 ft. high. The finest impression of the rocks is to be got by moonlight.

Kanyakumari—The temple of Kanyakumari (the Virgin Goddess) is situated at Cape Comorin. It is the land's end of India where Bay of Bengal, Arabian Sea and Indian Ocean meet. This is one of the most picturesque spots of India.

Patna—is the capital of Bihar and it spreads twelve miles along the Ganga. Things worth seeing at Patna are the huge beehive shaped Gola, 90 ft. high and 420 ft. at the base, which was built at the time of Warren Hastings for the granary ; Khuda Buksh Oriental Library is famous for its rare collection of Arabic and Persian manuscripts ; the ancient city of Pataliputra lies buried under Patna, which was once the capital of Chandragupta Maurya. It was also the capital of Asoka.

Madurai—was the capital of Pandiyan Kings and became famous in the 17th century under the Nayak kings. The huge temple of Madurai known as *Minakshi Temple* (Goddess with fish eyes) is the most famous of the South Indian temples and one of the finest edifices of Dravidian architecture. It is dedicated to Siva and his espouse Minakshi. The temple forms a parallelogram, 850 ft. by 750 ft. and is surrounded by nine gopurams one of which is 150 ft. high. The most elaborate stone carving is found in the Hall of a Thousand Pillars. The other important buildings are all associated with the name of Tirumala Naik whose palace is the perfect specimen of secular architecture in Madras State.

Kashmir—Altitude varies from 5,000 to 6,000 ft. Srinagar is the summer capital. It is 5,200 ft. with an area 11 sq. miles ; mean temperature in January and February is 25°F. Srinagar is now reached by motor road *via* Pathankot. Srinagar lies along the banks of Jhelum which is crossed by seven bridges. Kashmir has beautiful Mughal gardens built by the Mughal Emperors of Delhi, such as

Shalimar gardens, Nishat Bag, Nasim Bag and *Chashme Shahi.* Following are the heights of some prominent places of Kashmir—Srinagar 5,200 ft.; Gulmarg 8,700 ft.; Phalgam 7,000 ft.; Amarnath 13,000 ft. Places worth seeing in Kashmir are—Phalgam 60 miles from Srinagar; Dal Lake; Amarnath—97 miles from Srinagar.

Lucknow—is the capital of Uttar Pradesh. The grandeur of the city dates from Asaf-ud-daula, the fourth Nawab. Lucknow is known as the city of gardens. Outstanding among its buildings are the great Imambara with a hall 162 ft. long and 54 ft. wide, the Husainabad Imambara, Rumi Darwaza, Chattar Manzil and the Wingfield Park.

Pushkar—is famous for its lake and fair which is held in October-November. The lake is regarded as most sacred in India and the temple of Brahma close to the lake is supposed to mark the spot where the incarnation of the god took place.

Nalanda—Nalanda University was founded in the epoch of the Gupta kings and became one of the largest universities of Asia. Hien Tsang the well-known Chinese traveller who studied at the university in the 7th century, has left glowing accounts of its activities. It consisted of 10,000 scholars lodged in special hostels endowed by foreign kings. Instruction was provided in separate colleges with a vast library spread over three buildings. It flourished for 700 years until destroyed by fire by foreign invaders in the 12th century A.D. 29 miles eastwards on the road from Patna stands Bakhtiarpur. Here a road branches off due south to Bihar Shariff (19 miles) whence a smaller road leads to Nalanda station (6 miles). From the station the excavation site is 2 miles. Throughout the distance of 56 miles from Patna, the roads are serviceable all the year round. The site has been excavated by the Archaeological Department of the Government of India.

Mahabalipuram—Also known as seven pagodas, on the coast of Bay of Bengal, 53 miles south of Madras. Easily accessible by roads, it is 18 miles from Chingleput on the Madras-Trichinopoly section of the Southern Railway. Monuments of Mahalipuram are hewn out of solid rock—such as (1) Five rathas, (2) Mahisasura Mandapa, (3) Krishna Mandapam, (4) Arjuna's penance. These are the finest specimens of rock-cut and bas relief figures in India.

Saranath—is five miles outside Banaras. In the 'Deer Park' of Saranath, Gautama Buddha preached his First Sermon on Nirvana. The ruins of monastaries built more than 1,500 years ago draw Buddhist pilgrims from all over the world. Here stands the famous Asoka Pillar of polished sandstone whose lion capital was adopted by the Republic of India as the state emblem. The museum of Saranath contains may superb specimens of ancient art.

Udaipur—is one of the most beautiful cities in India. The city is completely encircled by a bastioned wall to which there are five main gates or poles. It stands in a valley amid green hills on the banks of a large lake with little islands. On these rise from the water's edge marble palaces of pure white that glisten in the sunlight.

Tirukklukundram—This is also called the Hill of the secred kites.

This is midway between Chingleput Railway Station and Mahabalipuram. There is a small shrine on a hillock, about 500 ft. high. Every day, just before noon, two kites considered to be sacred birds visit the hillock and eat from the hands of a priest. There is a belief that the birds are two saints who rest on their daily flight between Banaras and Rameswaram.

Tiruchirapalli—Till recently known as Trichinopoly, is 218 miles from Madras. The place has a famous rock Temple and also Teppakulam, a large tank with a mandapam in the middle.

Tanjore—On the main line of the metre gauge section of the Southern Railway lies Tanjore, the last capital of the Chola Dynasty. The place is famous for its great Sri Brihadiswara Temple, known throughout the world for its massive architectural excellence.

Rameswaram—At the extreme south-eastern limit of Indian peninsula stands Rameswaram where the great Rama himself is believed to have offered worship to Siva to expiate the sin of having killed in battle Ravana, the ten-headed ruler of Lanka. Rameswaram is little over two miles from Madurai and can be reached by a small branch line off Pamban, on the Dhanushkadi route. The temple of Sri Ramanathaswamy dates back to the 15th century. The glory of the temple is in its corridors. These extend to a total length of nearly 4,000 feet. Here the side corridors are 700 feet long and open into transverse gallaries as rich in design as themselves.

ARCHITECTURAL & HISTORICAL LANDMARKS
HINDU & BUDDHIST

Ajanta Frescoes—Famous frescoes in the Buddhist caves of Ajanta, a village in Hyderabad State. It is reached by motor from Jalgaon Station on Western Ry.—37 miles from the station. The caves of Ajanta consist of 24 monasteries and 5 temples, some of which are 2000 years old. They are excavated on a wall of almost perpendicular rock, 259 ft. high, sweeping round in a hollow circle and extending a third of a mile from east to west. These caves are situated in the horse-shoe valley. Frescoes are now ranked among the masterpieces of the world's art. The frescoes at Ajanta may be divided into narrative scenes, portraiture and decoration and illustrations of the life of Buddha.

Ambar Palace—In the deserted capital of Jaipur, this Palace is considered to include the finest specimen of Rajput architecture.

Barhut—Central India. The sculptures on the stone railing surrounding the Barhut stupa (second century B.C.) represent, with most careful exactitude the episodes in the life of Buddha and in his former lives.

Buddhist caves at Karli—One of the most famous of rock-cut temples. It is the largest and the most harmonious. It dates from the first century B.C. It is 124 ft. long and 45 ft. wide internally.

Bodh-Gaya Temple—The temple is built on the site of a shrine erected by the Emperor Asoka. It commemorates the moment when Gautama meditating under the trees of Bodhi attained enlightenment and quality of Buddha after seven years of mental conflict and penance. The tower of the temple of Bodh-Gaya rises to the height of 180 feet.

Black Pagoda—Close to the sea-coast, north of Puri, stands the 700-years-old Konark temple. Legend runs that the Sun-god was once seen here rising out of the sea in his golden chariot. Where his shadow fell, devotees endeavoured to build a temple in the shape of the god's chariot, complete with twenty-four wheels and seven horses. Though now partly in ruins, their symphony in stone still ranks as one of India's greatest architectural splendours. 24 miles out of Puri, the road leading to Bhubaneswar, branches off at Pipli towards Konark, which lies 29 miles away. This road is motorable only between December and June. There is an inspection bungalow near the temple, but no refreshments are available.

Belur Temple—known as Chenna Kesava Temple is situated in Mysore State. The temple is one of those exquisite specimens of Hoysala architecture, built 1117 years ago by the munificence of the Hoysala King, Vishnuvardhana. Ferguson says—'There are many buildings in India which are unsurpassed for delicacy of detail by any in the world, but the temple of Belur surpasses even these for freedom of handling and richness of fancy.'

Chitore Fort—symbolises the spirit of bravery and heroism of Gohilward and Sisodia Kings of Mewar. Chitore was the capital of Gohilward and Sisodia King of Mewar from the 8th to the 16th century. The fort presents a vast panorama of temples, imposing palaces and towers which are now mostly in ruins. The most famous is the Tower of Victory which was built by Rana Kumbha to commemorate his victory over Sultan Mohammad Khilji of Malwa in 1440.

Dilwara Temples—Near Mount Abu, the principal hill station of Rajasthan are the wonderful Dilwara Temples. Five in number, they date from the 11th, 12th and 13th century and are built entirely of marble. The carvings which decorate the interior walls and pillars of the temples are fantastically lavish, yet the general impression is one of perfect harmony. The Temples are the Vimala Shah, built in 1032 and the temple of the two brothers Vastupala and Tejpala built between 1197 and 1247.

Elephanta Caves—The Elephanta Island is about 6½ miles north-east of Apollo Bunder in Bombay harbour. There are seven caves in all, but the main cave marked No. 2 which contains the Siva shrine is the most important and contains the sculptured panels. The great three-faced idol representing Trimurti is the most striking among the sculptures in the caves.

Ellora Caves—These caves can be conveniently reached from Aurangabad on Western Railway and it is 71 miles from Manmad. The caves lie at a distance of 14 miles from Aurangabad. Ellora cave temples, 34 in number are perhaps the largest and most varied in India. There are three classes of caves, Hindu, Buddhist and Jain. Excavated in the scarp of a large rocky plateau, they are remarkable memorials of these great faiths. The most marvellous of all is the stupendous rock-cut temple of Kailasa, elaborately carved inside and outside. Hewn entirely out of solid rock, with its massive pillars and colonades, intricate gallaries, painted ceilings and huge sculptures, Kailasa is one of the world's wonders.

Gwalior Fort—is one of the most impressive strongholds of mediæval India. The ascent to the fortress is like that of some fabled palace of the Arabian Nights. Of the many palaces within the walls, the most splendid is that of Man Singh.

Golden Temple—At Amritsar, the famous Sikh Temple stands on a raised plinth, 65 ft. square in the centre of the tank and is surrounded by verandas.

Gomateswara—Near the town of Sravana Belgola in the State of Mysore, is the giant figure of Gomateswara, the Jain sage. The figure is 57 ft. statue and is carved out of a single stone at the top of a hill. The image is probably 2,000 years old.

Iron Pillar—Only a few yards from Katub Minar stands the famous Iron Pillar of Chandra Varman, the Hindu King of Pushkaran. It is a solid shaft of wrought iron about 16 inches in diameter and 23 feet 8 inches in height. Purity of iron (99.97 p.c.), accounts for the absence of rust despite its exposure to the sun and rain for over 1500 years.

Mahabalipuram—or Seven Pagodas are situated on the south coast of Madras. Its temples are bas-reliefs and are cut from living rocks. The most famous is the 'Descent of the Ganges'. This giant image dating from the seventh centuary is cut in a granite rock, 90 ft. long and 43 ft. high. Another famous sculpture is 'Vishnu reclining on the snake Ananta'. "Arjun's Penance," another bas-relief is the largest bas-relief in the world.

Meenakshi Temple—Madurai is remarkable for its most picturesque temple, the Meenakshi Temple with its magnificent Gopurams. The Great Temple dedicated to the Goddess Meenakshi forms a parallelogram, 850 ft. by 750 ft. and is surrounded by nine Gopurams, one of which is 150 ft. high. One of its principal structures is the Hall of thousand pillars in which groups of figures are carved from single stones.

Sanchi Tope—Famous Buddhist stupa in Bhopal, 25 miles from Bhopal. Stupa is a hemispherical monument of bricks or stones. Sanchi Stupa is one of the oldest (third-first century (B.C.) and best preserved Stupas of India. Stupa stands on the top of a small hill and enclosed by the finest and oldest stone railing in India. The stupa is 120 ft. in diameter and 56 ft. high. The most striking features of the Stupa are the gates which face four cardinal points and measure 28 ft. 5 in. to the top of the third architecture and are profusely carved with scenes from Jataka stories. Near the Stupa is the new memorial erected to preserve the remains of the famous disciples of Buddha, Sariputta and Mangalana.

Tower of Victory, Chitore—A famous Hindu monument raised by Rana Kumbha in 1450 to commemorate his victory over the combined armies of Malwa and Guzarat. It consists of nine stories and is 122 ft. high.

Sirguya Frescoes—are the earliest deteable Indian paintings. These are a group of Buddhist frescoes (100 B.C.) on the walls of a cave in Sirguya in Madhya Pradesh.

Temples of Bhubaneswar—Near Puri, most famous of these are *Rajrani* and *Lingaraj* Temples. Rajrani Temple, erected in the 11th century is a gigantic tower covered with statues and surmounted by receding layers of stones, the whole inward-curving tower ending in a great circular crown and a spire. Lingaraj Temple is the most perfect example of north Indian architecture.

Kajuraho Temples—At Kajuraho in Bundelkhand are grouped about thirty temples dedicated to Siva, Vishnu or Jina. They date from about 950 to 1050. These temples are unrivalled for profusion of ornate detail. In the Kandarya Mahadeva temple, the largest of the group, the details of bewildering complexity are massed together to form a perfectly balanced unity.

Saranath—At Banaras, there is the great Buddhist Stupa, a stupendous stone structure, 104 ft. in height and 93 ft. in diameter. It commemorates the fact that here Gautama Buddha preached his doctrine to his first five disciples.

Temple of Sri Rangam—Two miles north of Tiruchirapalli, on an island formed by the bifurcation of the river Cauvery is Srirangam, famous for the temple of Vishnu, which contains a hall of thousand columns and sacred shrine of Ranganathaswami.

Rameswaram Temple—The temple of Rameswaram is probably the most perfect specimen of art in the Dravidian style. The holy town of Rameswaram is built on an island in Palk Straits. The great temple is in the form of quadrangular enclosure, 650 ft. broad by 1,000 ft. long. Its glory lies in its vast pillared corridors which extend to a length of nearly 4,000 feet.

MUSLIM

Fatehpur Sikri—23 miles from Agra stands the city of palaces built of red sand-stone by Akbar in 1569-1584. Most important piece of art is Buland Darwaja, 176 ft. high built in commemoration of the conquest of Khandesh. Though the city was abandoned for lack of adequate water supply, what remains of its deserted glory is enough to testify to the perfection which Indo-Muslim architecture had attained in the reign of Akbar. Fatehpur Sikri stands authentic witness of Akbar's splendid effort to achieve a synthesis between Hindu and Muslim cultures.

Gol Gambuz at Bijapur—is the 2nd largest dome in the world. This has a floor area of 18,110 sq. ft. This is the largest space covered by any single dome, second largest being that of Pantheon at Rome which has a floor area of 15.833 sq. feet. If the pendentives are also taken into account, the Gol Gambuz is the greatest domed roof in the world too. It was built in 1656 by Sultan Mohamed Adil Shah to be his last resting place. The 11 ft. wide world-famous whispering gallery hangs out in the interior of the building, 109 ft. 6 ins. above the floor. The surface measurement of the dome including four octagonal towers is 205 sq. ft. and the height of the building from the base to the apex of the dome is 198 ft. 6 in. The exterior diameter measures 144 ft. whilst interior diameter is 134 ft. 5 in.

Kutab Minar (238 ft. high) at Delhi—is one of the masterpieces of Indian technology and art. It is the highest stone tower in India. It was completed by Kutab-ud-din-Aibak in 1199 and further developed by Iltutmish in 1229. It is the first outstanding structure in the Islamic style. It is made of red stone and marble. It has five storeys separated by projecting balconies.

The Fort, Agra—Originally built by Akbar, the Fort saw many additions in the reign of the great builder, Shah Jahan. Its walls, 70 ft. high with octagonal towers and crenellated ramparts enclose many relics of old splendour, great courtyards, gateways, audience halls, mosques and royal apartments.

Red Fort, Delhi—The walls of Red Fort enclose the former great imperial palace of Shah Jahan. The wonders of Red Fort recall the pomp and pageantry, the wealth and magnificence of Mughal times. Built by the emperor Shah Jahan between 1639-1648, the fort is famous for its *Diwan-i-khas, Pearl Mosque* etc.

Jama Masjid—Known as India's finest and biggest mosque, Jama Masjid was built by the Mughal Emperor Shah Jahan at Delhi during the period 1650-58. The masjid, raised on a lofty basement, is 201 feet in length by 120 feet and is flanked by two minarets 130 ft. high.

Mausoleum of Sher Shah at Sasaram—is a gigantic solid and masculine example of Moslem architecture standing in the middle of a large tank. 350 miles from Calcutta by Grand Trunk Road, Sasaram stands on the left bank of the Sone river.

Taj Mahal at Agra—Most famous tomb built by Shah Jahan in memory of his beloved wife—rises with its slender minarets in the midst of magnificent gardens. It is the result of collaboration between Indian, Turkish and European artists. The height of the dome is about 230 feet.

THE CALENDAR

INDIAN CALENDAR—The *Bikram or Samvat* era is most widely used specially in northern India, Rajasthan, Gujarat and is believed to have been established by Vikramaditya, king of Ujjain, to commemorate his victory over Saka kings. But there is dispute over the identity of Vikramaditya as there are so many kings bearing this name. It commenced on February 23, 57 B.C. Samvat is a lunisolar year.

The *Saka* or *Sakabda* era is used in some parts of South India. There is an historical dispute as to the origin of this era. It is said to date from the Saka king, Salibahana or it begins with the coronation of the Kushan king Kaniska, and dates from 3rd March, 78 A.D.

Bengali Year was originally a reckoning for agricultural and revenue purposes instituted at the time of Emperor Akbar. In A.D. 1555-6 corresponding to Hijri 962-3, solar computation was introduced to the Muslim era Hijri which became the *Fasli* or harvest era of northern India and was adopted as the current official era in Bengal.

Other Eras—The *Buddha era* from 543 B.C. and *Chaitanya era* from 1407 A.D.

Kali Yuga—The oldest era of India is *Kali Yuga.* The Kali Yuga began on the 18th Feb., 3102 B.C. Thus the Kali Yuga was 5060 in 1958.

India's National Calendar—Saka Year—In 1952, a seven-man Committee was appointed by the Government of India to examine the calendar systems followed in the country. The Committee recommended the use of Saka era for a unified National calendar for civil purposes. The Government of India has adopted this uniform National Calendar, based on the Saka era. This calendar has been adopted with effect from March 22, 1957 corresponding to Chaitra 1, 1879 Saka.

The pre-eminence of the Saka era derives from the fact that it was the earliest to be introduced in India by the Saka ruling powers and was used exclusively by the Sakadvipi Brahmins (the astrologer caste) for calendar-making and for casting horoscopes since 1st century A. D. This was done on the basis of *Siddhantic* (scientific) astronomy evolved from old Indian calendar conceptions which were put on a scientific basis by blending them with astronomical conceptions prevalent in the West in the 3rd century. The Saka era is 78 years behind the Christian era. The Saka Year commences on the first of lunar Chaitra or the first of Solar Vaisakha in different parts of India.

A normal year would consist of 365 days, while a leap year would have 366 days. After adding 78 to the Saka era if the sum is divisible by 4, then it is a leap year. But when the sum becomes a multiple of 100, it would be a leap year only when it is divisible by 400, otherwise it would be a common year.

Chaitra should be the first month of the year. It should be 30 days in the common years and 31 days in a leap year. The five months following the month of Chaitra should consist of 31 days each and the last six months should all have 30 days. The dates of the reformed Indian Calendar would thus have a permanent correspondence with the dates of the present Gregorian Calendar, the corresponding dates being Chaitra 1, March 22 in a common year and March 21 in a leap year; Vaisakha 1, April 21; Jaistha 1, May 22; Asada 1, June 22; Sravana 1, July 23; Bhadra 1, August 23; Asvina 1, September 23; Kartika 1, October 23; Agrahayan 1, November 22; Pausa 1, December 22; Magha 1, January 21; and Phalguna 1, February 20.

The Indian season would thus be permanently fixed with respect to the reformed calendar as follows—*Grishma* (Summer) Vaisakha and Jyastha ; *Varsa* (Rains) Asada and Sravana ; *Sarat* (Autumn) Bhadra and Asvina ; *Hemanta* (late Autumn) Kartika and Agrahayana ; *Sisira* (Winter) Pausa and Magha ; *Vasanta* (Spring) Phalguna and Chaitra.

The National Calendar is now used for a number of official purposes together with the Gregorian Calendar. The purposes are

(a) the Gazettee of India bears the new Indian date in addition to the Gregorian date (*b*) in the opening news broadcasts by the A.I.R. in various languages the new Indian date is announced in addition to the Gregorian date (*c*) calendars issued by the government as well as government publications progressively give the new Indian dates in addition to the Gregorian dates and (*d*) communications issued by the government addressed to the public now usually bear the new Indias dates in addition to the Gregorian dates.

MAHOMEDAN CALENDAR—The Mahomedan era is based on *Hijra* or flight of Mahomed from Mecca to Medina. The first day of the era is not the actual date of flight but 16th July, 622 A.D. *Hijra* is a purely lunar year consisting of 12 months containing in alternate sequence 30 or 29 days, with the intercalation of one day at the end of the 12th month at stated intervals in each cycle of 30 years, the object of the intercalation being to reconcile the date of the first of month with the date of the actual new moon. The mean length of *Hijra* Year is 354 days 8 hours and 48 minutes and the period of mean lunation is 29 days 12 hours 44 minutes.

MODERN CALENDAR—The Roman Calendar had at first 10 months and 304 days, each month being divided into Kalends, Nones and Ides. The Julian calendar introduced 45 B.C. by Julius Caesar added 66 days with an extra day in February every 4th year, thus giving what we now call Leap Year. This Calendar was revised by Pope Gregory XIII (1502-85) who declared that 5 Oct. 1582 should be called 15 Oct., thus losing 10 days and also that a century should not be a Leap Year unless exactly divisible by 400, hence 1900 was not a Leap Year but 2000 will be. This Gregorian calendar has been adopted almost everywhere.

JEWISH CALENDAR—is luni-solar, that is to say, the year is solar and months are lunar. In a cycle of 19 years the 1st, 2nd, 4th, 5th, 7th, 9th, 19th, 12th, 13th, 15th, 16th and 18th year have 12 months and the remaining years 13 months of 29 or 30 days each. The length of the ordinary year may be 353, 354 or 355 days and that of the leap year 383, 384 or over 385 days; thus the mean length of the year over a 19-year cycle is just over 365 days. The years are reckoned from the creation of the world, the date of which is taken to be 3760 B.C. Thus the year A.D. 1938 is A.M. (*Anna Mundi*) 5698-99. The day begins at sunset for the purpose of observing the Sabbath and the various feasts and fasts. The time is 2 hours 21 minutes in advance of Greenwich time, being that of meridian of Jerusalam.

ZOROASTRIAN CALENDAR—is employed by Zoroastrians in India and Iran which began in June 16, A.D. 632.

BUDDHIST CALENDAR—It is reckoned from the death of Buddha in 543 B.C. (the actual date being 487 B.C). The Buddhist year begins from Vaisakhi Purnima. Buddha was born on the Baisakhi full moon day, he took his seat under Bodhi tree at Gaya on full moon day to attain wisdom. It was on the full moon day again that he left the world.

HINDU CALENDAR—Hindus have employed luni-solar cycles made by the combination of solar years and lunar years so treated

as to keep the beginning of the lunar year near that of the solar year. In some parts of India solar years are used while in other parts lunar is followed :

The solar year is divided into 12 months in accordance with the successive *Sankranits* or entrances of the Sun into the sidereal signs of zodiac. The names of the signs are as follows :—

Mesha, the ram (Aries).
Vrishabha, the bull (Taurus).
Mithuna, the pair (Gemini).
Karkata, the crab (Cancer).
Sinha, the lion (Leo).
Kanya, the maiden (Virgo).
Tula, the scale (Libra).
Vrischika, the scorpion (Scorpio).
Dhanus, the bow (Sagittarius).
Makara, the sea monster (Capricorns).
Kumbha, the water pot (Acquarius)).
Mina, the fishes (Pisces)..

But these are also known in some parts by another set of names preserving connection with lunar months—*Chaitra, Vaisakha, Jaistha, Ashara, Sravana, Bhadra, Asvina, Kartika, Margasirsa* or *Agrahayan, Pausa, Magha* and *Phalguna.*

The astronomical solar month runs from the moment of one *Sankranti* of the sun to the moment of the next *Sankranti* and as the signs of the Hindu zodiac are all of equal length, 30 degrees, while the speed of the sun varies according to the time of the year, the length of the month is variable.

The days of solar month begin with sun-rise. The days are named as follows : *Ravivara*, the day of sun (Sunday); *Somvara*, the day of the moon (Monday) ; *Mangalvara*, the day of the Mars (Tuesday) ; *Budhvara*, the day of Mercury (Wednesday) ; *Brihaspativara*, the day of Jupiter (Thursday); *Sukravara*, the day of Venus (Friday) ; *Sanivara*, the day of Saturn (Saturday).

The lunar year consists of primary 12 lunar months. It is of two principal varieties according as it begins with a certain day in the month of Chaitra or with the corresponding day in Kartika. The present names of the lunar months were derived from 12 out of the 27 Nakshatras, supposed to be companions of the Moon during 12 full-moon nights.

Important Eras—The beginnings of important eras are as follows—

	B. C.					B. C.	
Grecian ..	Sept.	1	5598	Macedonian	Sept.	1	312
Julian Period	Jan.	1	4713	Augustan ..	Feb.	24	27
Jewish ..	Oct.		3761		A. D.		
Olympiards ..	July	1	776	Christian ..	Jan.	1	1
Foundation of				Armenian ..	July	7	562
Rome ..	April	24	753	Muslim ..	July	16	622

NAMES OF MONTHS—January was named from *Janus*, god who presided over the beginning of everything. February from *Februa*, a festival of purification held in that month by the Romans. *Maritus* is the Mars, who was originally a god of agriculture, his month being the one when crops are ordinarily planted. The origin of April is not known. May is named from *Maia*, the mother of

Roman god Mercury. June is derived from *Juno*, the goddess of women and of marriage. July was formerly called quintilius from *quintus*, the fifth, but when Julius Cæsar reformed the calendar, he changed the month's name to Julius in his own honour: Julius became July in English. August was originally called sextilis, afterwards was named August from the Emperor Augustus. Those from September to December are so called from the numbers *Septem*, 'seven', *Octo.*, 'eight', *November*, 'nine' and *December*, 'ten'.

YEAR—Unit of time is marked by the revolution of the earth in its orbit round the sun. The *Solar Year* is 365 days 5 hours, 48 minutes 49·7 seconds. *Calendar Year* consists of 365 days, but a year the date of which is divisible by 4 without remainder is called *Leap Year* and consists of 366 days, one day being added to the month of February. The last year of a century is not leap year unless its number is divisible by 400, i.e., the years 1800 and 1900 had only 365 days. *Tropical Year* is the time that earth takes to revolve round the Sun from equinox to equinox or 365.2422 mean solar days. *Sidereal Year* in which the observation is made on a star is 365 days, 6 hrs. 9 mins. 9 secs.

TIME—Measurement of time is based on the time taken by earth to rotate on its axis (*day*); by moon to revolve round the earth (*month*); and by the earth to revolve round the sun (*year*). Day starts at midnight and is divided into 24 hours of 60 minutes, each of 60 seconds. The hours are counted from midnight up to 12 at noon and these hours are designated A.M. and again from noon up to 12 at midnight, which hours are designated P.M. The 24-hour reckoning, however, ignores A.M. and P.M. and the hours are numbered 0 to 23 from midnight to midnight.

Different ways of telling time—The usual division of the day into "A.M." (ante meridian) and "P.M." (post meridian) groups of 12 hours each has given way for same purposes to the "24-hour" day in many countries. On the "24-hour" clock the hour begins with zero at midnight and runs to 23; thus 1-30 P.M. is called 13-30 o'clock, it is simpler than the 12-hour system and makes calculation easier, and so on. This system is in general use on railway systems. Since astronomers and navigators use it for tables and records.

On ship board varieties of time are used. "*Greenwich time*" or time corresponding to that at Greenwich, England, is kept by an accurate chronometer for use in determining the ship's position. The ship's routine is, however, governed by "*watches*" and "*bells*." The day is divided into six "watches", commencing at noon and each watch is divided into eight parts marked by "bells." One half an hour after a watch begins, "one bell" is struck. Half an hour later, or one hour after the commencement of watch, "two bells" strike, and so on upto "eight bells" when the watch changes and the bells strike all over again from one to eight.

Astronomers usually use *sidereal time*, which is fixed by observing the transits of the stars. A *sidereal day* is the period of one rotation of the earth upon its axis. It starts at noon and contains 24 hours 56 minutes and 4 seconds of mean solar time. A *sidereal year* contains 366¼ sidereal days.

Local Time—When the system of local time is used, it is 12 o'clock (noon) at any region where the sun is at its highest point in the sky, and shadows are cast in a line extending north and south.

Greenwich Mean Time—The International Meridian Conference held in 1884 established the meridian passing through Greenwich, England, as the prime meridian, from which the world's time was to be reckoned. The world is considered as being divided into 24 zones each of 15° of arc, or one hour in time apart. The meridian of Greenwich (0°) extends through the centre of the initial zone and the zones to the eastwards are numbered from 1 to 12 with the prefix 'minus' indicating the number of hours to be subtracted to obtain Greenwich time. The zones to the westward are similarly numbered, but prefixed 'plus' showing the number of hours that must be added to get Greenwich time.

Time Zones—The 15 degree measurement divides Europe into three time-zones—*Greenwich*, *Mid-European* (one hour faster), *East European* (2 hours faster). United States and Canada are divided into five time-zones—*Atlantic*, *Eastern*, *Central*, *Mountain* and *Pacific*.

Examples of Zone System :—

Fast on Greenwich Time

12 hrs. F ..	Fiji, New Zealand.
9½ hrs. F ..	South Australia.
9 hrs. F ..	Manchuria, Japan, Korea.
8 hrs. F ..	East China, Philippine Islands, West Australia, Indo-China, Formosa.
7½ hrs. F ..	Malaya, Singapur, Java.
6½ hrs. F ..	Burma, Andaman & Nicobar Islands.
6 hrs. F ..	East Pakistan.
5½ hrs. F ..	India, Ceylon.
4½ hrs. F ..	West Pakistan.
3½ hrs. F ..	Iran.
2 hrs. F ..	(*East European*) Turkey, Greece, Finland, Egypt, Israel, Syria, South Africa.
1 hr. F ..	(*Mid. European*) Sweden, Norway, Netherlands, Germany, France, Austria, Yugoslavia, Switzerland, Hungary, Czechoslovakia.
Greenwich ..	Great Britain, Ireland, Portugal, Algeria, Morocco, etc.

Slow on Greenwich Time

1 hr. S ..	Iceland.
3 hrs. S ..	Greenland, Uruguay, Argentina.
4 hrs. S ..	(*Atlantic*) Canada, Central Brazil, Bolivia, Chile.
5 hrs. S ..	(*Eastern*) E. States of U. S. A., Cuba, Panama, Colombia, Equador.
7 hrs. S ..	(*Mountain*) Canada from 102°W to 120°W, Mountain States of U. S. A., part of Mexico.
8 hrs. S ..	(*Pacific*) Canada West of 120°W, Western States of U. S. A.
10 hrs. S ..	Central Alaska, Hawaii.
11 hrs. S ..	Aleutian Is., West Coast Alaska, Samoa, Midway Islands.

Summer Time or Daylight Saving Time—Device to make more sunlight hours available for business, industry, leisure by setting all clocks forward one hour during summer, when the sun rises early, thus saving evening use of artificial light. This device was first used as national economy during World War I.

International Date Line—is an imaginary line extending north and south through Pacific Ocean, and is the point at which the traveller must add or subtract a day from the calendar. On a journey westward across the Pacific, he must add a day (for example, by changing Monday, the 17th to Tuesday, the 18th) ; when travelling eastward, he is required to set the date back one day, otherwise he will not be in accord with the local date when he returns to his starting place after making trip round the world.

Indian Standard Time—The Indian Standard Time which is 5½ hours ahead of Greenwich Mean Time was first adopted on 1st January 1906. It was based on the mean time of 82½°E longitude which passes through Banaras and Cocanada. Though it was used by Railways and Post and Telegraph Offices, Calcutta had its own time 24 minutes ahead of it. During World War II, a uniform time 6½ hours ahead of Greenwich time was adopted in India. India now observes Indian Standard Time, which is 5½ hours ahead of Greenwich.

Longest and Shortest days—Longest day is the day on which the sun attains its greatest distance from the equator, north or south, accordingly as the place is in the northern and southern hemisphere. In other words, it is the day of the calendar on which a Solstice falls. This generally falls on June 21. Similar considerations apply to the shortest day of the year which falls on December 22, or the day of the Winter Solistice.

Dog Days—The days about the heliacal rising of the Dog Star, noted from ancient times as the hottest and most unwholesome period of the year in the northern hemisphere. The period of dog days are generally July 3 to August 15.

HOLIDAYS

Hindu Festival—*Durga Puja*—A national festival in Bengal. The celebration signifies the triumph of good over evil and the subjection of animal passions by human beings. It is also symbolical of womanhood's strength and power to combat all forms of reaction. According to *Puranas*, a demon, Mahisasura, was threatening gods and men. Durga, the embodiment of Divine Power, took human form and bearing weapons in her ten hands slew the demon. Hence the form in which the goddess is worshipped is that of a warlike figure having ten arms and riding astride a lion. The goddess descends from her heavenly home, the Kailash, to visit her children on earth three days every year, accompanied by her two sons, Kartik, a great warrior, and Ganesh, the God of Prosperity and two daughters, Lakshmi, the Goddess of Wealth and Saraswati, the Goddess of Learning. On the fourth day, the immersion ceremony takes place and the image of the Goddess is consigned to the waters.

The tradition says that on the last day, Ramchandra of Ramayana offered special prayers to the Goddess and thus gained victory over Ravana, the Demon King of Lanka (Ceylon).

Sivaratri—Festival in honour of the Hindu God Siva, one of the Hindu Trinity. It takes place in the month of February-March.

Holi—Hindu festival in March. It marks the coming of the spring. The festival in general is held in honour of Krishna. The day is celebrated in greatest merriment and fun and coloured waters are thrown over relatives and other people. It is a great festival of northern India.

Dewali—A festival of lights held in October-November. The festival is celebrated by means of illuminations and fireworks. In some States Hindu merchants begin their fresh account books. The legend says that its celebration began with the coronation of King Rama.

Ganesh Chaturthi—A great Hindu festival of the Western India generally takes place in September in honour of Hindu God Ganesh who is represented with four hands and an elephant's head. This festival is also known as *Ganapaty Day.*

Dusserah—It is a great festival of northern India : it usually takes place in the month of September or October. The festival takes place in honour of the victory of Goddess (*Devi*) over the buffalo-headed demon Mahisasur. The festival takes place for nine days known as *Navaratri.* It also commemorates the victory of Rama over the demon king Ravana. In all important towns of northern India huge effigies of Ravana is made and burnt on the last day of the festival in great pomp and pageant.

Saraswati Puja—Usually takes place in the month of Magh (January-February) on the fifth day (*Panchami*) of the new moon. This day, according to Hindus, heralds the advent of spring. Saraswati is the Goddess of Learning.

Christian Festival—*All Fools' day*—The first day of April, when, from centuries throughout the Christendom it has been customary to place irresponsible tricks on one's neighbours.

Arbor day—Annual tree planting day is generally observed throughout U.S.A., in parts of Canada and Great Britain.

Bank Holiday—In Great Britain a secular day when by law banks are closed, and parties are exempt from presentment or payment of negotiable paper.

Candlemas day—In its ecclesiastical meaning Candlemas is the feast of purification of the Virgin Mary and is observed on February 2. This festival is strictly kept by Roman Catholic Church.

Christmas—Meaning Christ's Mass, is applied to the festival commemorating the birth of Christ celebrated on December 25. The exact date of Christ's birth is unknown. January 6 and December 28, however, were commonly chosen in the 4th century. The general adoption of December 25, first in the west and a little later in the east, dates from the 5th century.

Easter—The season which commemorates the death and resurrection of Jesus Christ is universally regarded as the chief of Christian festivals. Christians believe that Jesus was crucified on Good

Friday and rose again from the dead after three days on Easter Monday.

Good Friday—The Friday before Easter Sunday, celebrated in commemoration of the crucifixion of Jesus.

Holloween—The name of the popular, boisterous autumn celebration means 'holy eve', the occasion being the eve of 'All Hallows' or 'All-Saints' Day', November 1. It has the Pagan origin.

Lent—A word from the Anglo-Saxon *eencten* meaning "springtime". It is employed to denote the forty days preceding Easter, the period observed in the Catholic Church as a fast.

St. Valentine's day—A festival which falls on February 14. The origin of the observance of this day is uncertain. Among the many interesting folk customs of mediaeval France and England, was a gathering of young people on St. Valentine's eve 'Valentine' means sweet-heart.

All Souls' Day—Day of prayer for souls of the dead.

Moslem Festival—*Id-uz-Zuha or Bakr-id*—The festival commemorates the ordeal of Ismail and the miraculous way in which at the last moment Providence came to his rescue.

Hazrat Ibrahim, called Khalilulla, or the friend of God, was put to a terrible test when he was asked to sacrifice what was dearest to him, and he decided to offer the life of his beloved son Ismail. As he was on the point of applying the knife to Ismail's throat, it was revealed to him that this was meant only to test his faith and that he would, on opening his eyes, find a ram which he should sacrifice.

It has also a symbolical aspect : the sacrificial animal standing for the evil in human nature, which must be continually surrendered at the altar of God. This is celebrated on the 10th day of Zilhija.

Mohurrum—is a period of mourning and is observed annually in remembrance of the martyrdom of Hassan and Hussein, the grandsons of Prophet Mahomed, from whom the race of Syeds, the Muslim holimen is descended. Mohurrum is the name of the first month of the Muslim year but the mourning period lasts only for the first ten days. On the tenth day *tabuts* or *tazyas* made of various materials are exhibited and conveyed in procession through the streets. The *tazyas* are in the shape of mausoleums erected over the remains of Hussain who is buried at Karbala, the battle-field of Arabia on which he lost his life.

Akhiri-Chahar Sumbha—held on the Wednesday of Safar when Mahomed recovered a little in his last illness and bathed for the last time.

Sabi-barat—(night of allotment)—held on the 16th Saaban when it is supposed that human deeds are measured and their needs allotted.

Ramzan and Id-ul-fitr—Ramzan is the ninth month of the Moslem lunar year and is holy because the Quoran was revealed in that month. The fact is ordained in a magnificent passage of the Quoran. The fast springs from Quoranic instructions for the better communion with God whom all men must honour and worship and that those instructions are obeyed by the faithful with the greatest devotion and loyalty. The period begins with the first sight of the new moon of the month or if the day be overclouded and the moon invisible, on the completion of the thirty days from the previous moon. Each day's fasting must begin so soon as daybreak permits a white thread to be discerned from a black thread and it continues till sunset.

Buddhist Festival—*Full Moon of Vaisakha*—is the thrice sacred day in the Buddhist calendar. On this day, under the spreading emerald canopy of the *Sal* tree in the beautiful gardens of Lumbini was born of queen Maya, Prince Siddhartha, the Buddha to be. It was on another Vaisakha Purnima day, when Tathagata attained "Bodhi" or enlightenment under a Bodhi Tree at Gaya. On a third Vaisakha Purnima eighty years after the first that Buddha attained Mahaparinirvan in Kosi.

Ashada Purnima—is in commemoration of the first sermon of the Buddha attained Mahaparinirvan in Kosi.

Vas Pavarana—(End of rainy season lent) is held in October.

ASTRONOMICAL DATA

SOLAR SYSTEM—The Solar system is a unit of the Universe consisting of the sun, the nine major planets, their satellites, the minor planets, comets, meteors and certain aggregates of small particles known as zodiacal light. These are all held in their places by the pull of the sun. They travel round the sun receiving and reflecting light and heat. There are also diffused bodies called comets, which revolve in highly elliptical orbits and develop tails when they are near the sun. The nine large planets are the most massive bodies in the solar system, next to the sun. These planets have thirty one satellites including our moon. The nine planets in order of their distances from the sun are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. The planets differ greatly from one another in size. The smallest planet is Mercury, which is about one sixteenth the size of earth. Venus is almost as large as the earth but Mars is only one seventh as large. Saturn is 730 times as large as our planet. Uranus is sixty-four times as large and Neptune is sixty times as large as the earth. Jupiter is more than 1,300 times as large as the earth. Every planet has two motions. It revolves round the sun and at the same time it spins on its own axis.

Planets of the Solar System

	Mean Distance (miles of m. from sun)	*Diameter in miles*	*No. of Satellites*
Mercury	36.000,000	3,000	0
Venus	67,000,000	7,600	0
Earth	93,000,000	7,920	1

	Mean Distance (miles of m. from sun)	*Diameter in miles*	*No. of Satellites*
Mars	141,000,000	4,200	2
Jupiter	484,000,000	88,700	12
Saturn	886,000,000	75,100	9
Uranus	1782,000,000	30,900	5
Neptune	2793,000,000	33,000	2
Pluto	3670,000,000	C3,650	0

SUN—There are countless millions of far-distant self-luminous gaseous bodies called stars and each one is in itself a sun. Our sun is the centre of the solar system and the closest star to the earth. It appears brighter and larger than any other stars because of its comparative nearness—a distance of 93 million miles compared to 25 trillion miles of the next closest star. Physically the sun is a huge ball of glowing gas and incandescent vapours with an average surface temperature of approximately 6,000°C (11,000°F) increasing to an estimated 10,000,000°C or more deep in the interior. The sun is 865,370 miles in diameter; its mass is 333,434 times and its volume more than 1,000,000 times that of the earth. By the force of its gravitational attraction, the sun keeps the planets in their regular orbits and pulls them with it through space at the rate of about 12 miles per second. Isolated dark areas in the sun, first observed telescopically by Galileo, although known through naked eye observations by the ancient Chinese, are called sun-spots. These are huge whirling vortices in the solar atmosphere, representing zones of intense disturbance. They appear dark in comparison with the general surface of the sun because they are cooler than this surface.

EARTH—The earth is about 93,000,000 miles from the Sun. It travels 19 miles per second as it speeds round the sun (once in 365¼ days). It has an area of about 197,000,000 sq. m. The circumference at the equator is 24,902.39 miles and through the poles is 24,860.49 miles. Diameter at the equator is 7,926.67 miles. Besides spinning on its axis, the earth moves round the sun. The path of the earth round the sun called its orbit, is not a circle but an oval or ellipse and the plane in which the Earth moves is said to be Plane of the Ecliptic. The time taken to complete one revolution round the sun is one year, *i.e.*, 365¼ days approximately. The seasons are due to the changes of the earth's position in the course of its revolution about the sun and to the inclination of its axis.

MOON—is the only satellite of the earth, round which it revolves in 27.32 days at a mean distance of 238,860 miles. It has no atmosphere, and it shines entirely by the reflected light of the sun. The moon has much to do with our tides, its gravitational attraction piling up water on the earth's surface.

OTHER PLANETS—*Mercury* is the smallest of the major planets and the one nearest the sun. Its diameter is about 3,000 m., its period of revolution is 88 days and its distance from the sun varies from 28,500,000 to 43,350,000 m. *Venus* is second of the planets in order of distance from the sun. Its mean distance from the latter is 67,200,000 m., and it revolves in its orbit in 225 days. Its diameter is about 7,600 m. It is the evening star seen in the western sky. *Mars* has a mean distance of 141,650,000 m. from the sun. Its mass is only about one-tenth that of the earth and its diameter is little more than half. Its period of rotation is 24 hrs. 37 min. 23 secs. It has two very small satellites. It is the planet which scientists believe is most likely to have animal life. *Jupiter* is the largest of the planets with 12 known satellites. Its mean distance from the sun is 483 million miles and its time of revolution is 11.86 years. Its diameter is 11 times that of the earth. It rotates on its axis in a less than 10 hours. *Saturn's* mean distance from the sun is about 886,000,000 m., and it has a unique set of planetoid rings and at least 12 satellites. *Uranus* was discovered by Herschal in 1781. Its diameter is 30,000 m. and it revolves once round the sun from which it is 1,782,800,000 m. distant, in 84.02 years. It has four main satellites. *Neptune* has a diameter of 31,000 m. The distance from the sun is 2,793½ million m. Neptune has one satellite and the time taken for one revolution round the sun is 164.8 years. *Pluto* is the outermost of the known planets. Its distance from the sun is about 3,700 million miles with a 248-year revolution period.

ASTEROIDS—are also called minor planets. They are of small bodies which revolve round the sun in orbits lying between those of Mars and Jupiter. Known asteroids now number over 1,500. New ones are constantly being discovered. The largest is Ceres, 485 miles in diameter. Some of these celestial bodies are perhaps nothing more than great masses of rock flying round the sun. The largest asteroids are: *Ceres*, 485 miles in diameter, *Pallas* 280, *Juno* 150 and *Vesta* 241 (miles).

COMETS—A heavenly body of a luminous and nebulous appearance that moves round the sun in an orbit that is normally elongated ellipse. A comet consists of three parts : the nucleus or head, which contains an enormous number of small bodies, some like dust particles and others probably many yards in diameter ; the coma which surrounds the nucleus is of a gaseous nature ; and the tail which consists of small dust-like particles carried away from the nucleus by the gases in the coma and then repelled by sunlight. The tail sometimes looks formidable and it may be many millions of miles in length, but it is quite harmless and sometimes the earth has passed through the tail of a comet without ill effect. About 1,000 comets are known. A few comets travel in hyperbolic orbits, never returning, but most comets return over a period of years. The most famous is *Halley's Comet* which can be seen every seventy years.

METEORS—Meteors are pieces of matter which fall to earth out of space. They plunge into earth's atmosphere at great speed and become incandescent from the resultant friction, so that they are seen in the sky as fireballs or "shooting stars". The majority of meteors are burned up long before they strike the earth's surface and those which reach the ground are known as *meteorites*. Millions of them enter our atmosphere every twenty-four hours and probably not more than one or two a day survive to strike the ground as meteorites. Hence meteors which reach the earth are called meteorites. The largest meteorite ever found is located near Grootfontein, South-West Africa, which weights between 50 and 70 tons. The second largest meteorite (weight 36½ tons) was found at Cape York, Greenland.

CONSTELLATIONS—groups of fixed stars named after a mythological person, animal, etc. It must have been that earliest observers, several thousand years B.C., who recorded that the 'fixed' stars are not scattered uniformly over the sky but appear to be grouped into figures, now named constellations. This confines us to stars visible to the naked eye, and also those of Milky Way. The constellations covering the whole celestial sphere are divided into three groups according to the regions in which they are seen—the Northern, the Southern and the Zodiacal.

SATELLITES—The secondary bodies which revolve around the planets, as the planets revolve around the sun, are called satellites. With the exception of Mercury and Venus, all of the planets are accompanied by one or more satellites. Earth has one satellite, moon; Mars has two; Jupiter twelve; Saturn nine; Uranus five; and Neptune two.

STARS—are luminous heavenly bodies, so far distant from the solar system that the light from the nearest star travelling at the speed of 186,000 miles per second, takes four years to reach the earth. Unlike the planets, the stars shine by their own light. Stars are suns. Some of the stars are brighter and some of them are fainter than our own sun. The total number of stars is probably in the neighbourhood of three to four billion; a person with good eyesight can see about 3,000 stars at any one time on a clear night. The stars 'twinkle' as we gaze at them. This twinkling is caused by refraction through the earth's atmosphere.

First Magnitude Stars

(in order of brightness)

	Distance in Light-years*		Distance in Light-years*
Sirius	8.6	Altair	16
Canopus	100	Betelgeuse	300
Alpha Centauri	4.3	Aldebaran	60
Vega	26	Spica	200
Capella	50	Pollux	32
Arcturus	40	Antares	250
Rigel	600	Fomalhaut	24
Procyon	10.4	Deneb	400
Achernar	70	Alpha Crucis	200
Beta Centauri	190		

*Light Year=5,880,000,000,000 miles.

POLAR AURORAS—The *Aurora Borealis* (northern lights) and *Aurora Australis* (southern lights) are luminous atmospheric phenomena which occur in the Arctic and Antarctic regions respectively.

They are patches of light, quivering beams or immense 'curtains' with swaying folds appearing in the night sky. They may be white, red, yellow, green, violet. It has been definitely established that sun-spots are the direct cause of these polar auroras. Sun-spots are magnetic storms of vast dimensions on the surface of the sun and they shoot out electrified particles into space. Those that come toward the earth are drawn toward the earth's magnetic poles and consequently these magnetic poles are the radiating centres of those electromagnetic waves in the sky that we commonly call *Northern Lights* or *Southern Lights*, depending upon whether we see them in the nothern or southern hemisphere.

MILKY WAY—*Milky Way* is a hazy, somewhat irregular band of light about 20″ wide which completely encircles the heavens and consists of dense clouds of stars. It is seen on clear, moonless summer evenings stretching entirely across the northern sky.

ATMOSPHERE—The atmosphere is composed of air which surrounds or envelopes the whole earth. It is sometimes likened to a great sea of gases, at the bottom of which we live. This air which surrounds the globe affects the light that comes to us from heavenly bodies. It refracts (bends or changes the direction) light rays that enter it. Due to this refraction, we see the Sun and the Moon before they rise and after they set. The 'twinkling' of the stars is caused by convection currents in the air that have rapidly changing refractive effect on the light from the stars. Our twilight is produced by the diffusion in the atmosphere of light from the Sun when it is below the horizon. Chemically the atmosphere is composed of nitrogen, oxygen and extremely minor amounts of argon, neon, helium, hydrogen and carbon dioxide.

GEOGRAPHICAL INFORMATION

AREA OF THE CONTINENTS

	Sq. miles		*Sq. miles*
Europe	3,773,958	Antarctica	5,362,626
Africa	11,529,480	South America	6,825 876
Asia	16,494,217	North America	9,358,976
		Australia	2,974,581

FAMOUS RIVERS

	Length (mi.)		*Length (mi.)*
Nile	4,160	Lena	2,648
Amazon	4,501	Amur	2,621
Mississippi-Missouri	3,760	Yellow River	2,610
Yangtse	3,400	Mekong	2 610
Yenisei	3,300	Niger	2 600
Congo	3,000	Hoangho	2,600

OCEANS AND SEAS

Oceans	*Area (sq. m.)*	*Greatest depths (ft.)*
Pacific	67,700,000	35,640 (*Marianas Trench*)
Atlantic	34 800 000	30,246 (*Puerto Rico*)
Indian	28,600,000	22,968
Arctic	5,541,600	16,500
Seas	*Area (sq m.)*	*Greatest depths (ft.)*
Malayan Sea	3,139,000	21,342
Caribbean	1,667,000	23,748
Mediterranean	1,145,000	18,150

HIGHEST MOUNTAIN PEAKS

	Country	*height in ft.*		*Country*	*height in ft.*
Everest	Nepal Tibet	29 028	Annapurna	Nepal	26 508
Godwin-Austen (k^2)	Kashmir	28 250	Gosherbrum	Kashmir	26 470
Kanchanjanga	Nepal Sikkim	28 116	Gosainthan	Tibet	26,289
Lhotse I	Nepal Tibet	27 890	Disteghil	Kashmir	25 868
Makalu	Nepal-Tibet	27 824	Himalchuli	Nepal	25 801
Lhotse II	Nepal-Tibet	27 560	Nuptse	Nepal-Tibet	25 680
Cho 'Oyu'	Do	26 867	Masherbrum	Kashmir	25 660
Dhaulagiri	Nepal	26 811	Nanda Devi	India	25 648
Nanga Parvat	Kashmir	26 660	Chomo Lonzo	Nepal-Tibet	25 640
Mansalu	Nepal	26,657	Rekhaposhi	Kashmir	25,550
			Kamet	India-Tibet	25,447

LAKES

	Area (*Sq mi.*)		*Area* (*Sq. mi.*)
Caspian (Asia-Europe)	170,000	Great Bear (N. America)	12,660
Superior (N. America)	31,820	Great Slave (N. America)	11,170
Victoria Nyanza (Africa)	26,200	Nayasa (Africa) ..	11,000
Aral (Asia) ..	24,400	Erie (North America)	9,940
Huron (N. America) ..	23,010	Winnipeg (North America)	9,398
Michigan (N. America)	22,400	Ontario (North America)	7,540
Chad (Africa) ..	20,000	Ladoga (Europe) ..	7,100
Tanganyika (Africa)	12,700	Balkhash (Asia) ..	7,050
Baikal (Siberia) ..	12,150		

VOLCANOES

Active	*feet*	*Dormant*	*feet*
Cotopaxi (Ecuador) ..	19,550	Llullaillaco (Chile) ..	20,244
Mt Wrangel (U S.A.)	14,000	Demavend (Iran) ..	18,600
Mauna Loa (Hawaii) ..	13,675	Semerou (Java) ..	12,050
Erebus (Antarctic) ..	13,000	Halcakala (Hawaii) ..	10,032
Nyiragongo (Belgian Congo) ..	11,560	Guntur (Java) ..	7,300
Iliamna (Aleutian Is.) ..	11,000	Pelee (W. Indies) ..	4,430
Etna (Cicily) ..	10,741	Krakatoa (Sunda Strait)	2,600
Chillan (Chile) ..	10,500	Two-Shima (Japan) ..	2,480
Nyamuragira (Belgian Congo) ..	10,150	*Extinct*	*feet*
Paricutin (Mexico) ..	9,000	Aconcagua (Argentina)	22,976
Asama (Japan) ..	8,200	Chimborazo (Equador)	20,500
Hecla (Iceland) ..	5 100	Kilimanjaro (Tanganyika) ..	19 340
Kilauea (Hawaii) ..	4 090	Antisana (Equador) ..	18 850
Vesuvius (Italy) ..	3,700	Elburz (Caucasus) ..	18 526
Stromboli (Lipari Is.) .	3,000	Popocatapetl (Mexico)	17,750
		Orizaba (Mexico) ..	17 400
		Fujiyama (Japan) ..	12,395

LARGE ISLANDS

	feet	Baffin (*Canada*) ..	197,754
Greenland (*Denmark*)	840,000	Sumatra (*Indonesia*) ..	167,620
New Guinea (*Netherlands, Australia*) ..	316,861	Honshu ..	89 009
Borneo (*Indonesia, Gr. Br.*) ..	290 012	Great Britain ..	84,186
Madagascar (*France*)	228,682	Victoria (*Canada*) ..	80 340
		Ellesmere (*Canada*) ..	77 392
		Gava (*Asia*)	48,842

FAMOUS DESERTS

	Area (*Sq. mi.*)		*Area* (*Sq mi*)
Sahara (N. Africa) ..	3,500 000	Arabian (Arabia) ..	500,000
Libyan (N. Africa) ..	650,000	Kizil Kum (Central Turkistan) ..	70,000

FAMOUS DESERTS—(*Concld.*)

	Area (Sq. mi.)		*Area (Sq. mi.)*
Kara Kum (S. W. Turkistan) ..	110,000	Atacama (Chile) ..	70,000
Australian (Australia)	600,000	Mojave (U.S. California)	15,000
Gobi (Mongolia) .	500,000	Colorado (do) ..	3,000

GEOGRAPHICAL SURNAMES

Island of pearls—Bahrein (Persian Gulf).
World's lonliest island—Tristan De Cunha (Mid-Atlantic).
Roof of the World—Tibet.
Holy Land—Palestine.
Island of Cloves—Zanzibar.
Land of White Elephant—Siam.
Empire City—New York.
Pillars of Hercules—Strait of Gibraltar.
Key of the Mediterranean—Gibraltar.
Rose-pink City—Jaipur.
Whiteman's grave—Guinea coast of Africa.
Sugar bowl of the world—Cuba.
Windy City—Chicago.
Venice of the North—Stockholm.
Forbidden City—Lhasa.
Land of Cakes—Scotland.
Land of Five Rivers—The Punjab.
Gateway of India—Bombay.
City of Palaces—Calcutta.
Land of Golden Fleece—Australia.
City of Sky-Scrapers—New York.
Cockpit of Europe—The Balkans.
Land of Thousand Lakes—Finland.
City of Magnificent Distances—Washington D.C.
China's Sorrow—Hoang Ho.
Gate of tears—Strait of Bab-el-Mandeb
Pearl of the Antilles—Cuba.
The Corridor—A strip of land in Poland separating Germany from East Prussia.
Granite City—Aberdeen.
Eternal City—Rome
Gift of the Nile—Egypt.
Land of the Midnight Sun—Norway.
Land of Morning Calm—Korea.
Hermit Kingdom—Korea.
Playground of Europe—Switzerland.
City of Seven Hills—Rome.
Land of Rising Sun—Japan.
Dark Continent—Africa.
Emerald Isle—Ireland
Land of Maple—Canada.
Bengal's sorrow—Damodar.
Never Never land—Vast prairies of northern Australia.
Queen of the Adriatic—Venice.
The Down Under—Australia.
Herring Pond—Atlantic Ocean.
Great White Way—Broadway (New York).
City of Dreaming Spires—Oxford.
Garden of England—Kent.

FAMOUS TUNNELS

	Miles		*Miles*
East Finchley-Morden ..	17¼	Mont Cenis, *Italy* ..	8½
Simplon (*Switzerland-Italy*)	12¼	Cascade, *U.S.A.* ..	7¾
Apennine, *Italy* ..	11½	Arlberg, *Austria* .	6¼
St. Gothard, *Switzerland*	9¼	Moffat, *U.S.A.*	6
Loetschberg, *Switzerland*	9	Shimzu, *Japan* ..	6

FAMOUS TUNNELS—(*Concld.*)

	Miles		*Miles*
Rimutaka (*N. Z.*)	5½	Ronco, *Italy*	5
Ricken, *Switzerland*	5¼	Hauenstein, *Switzerland*	5
Grenchenberg do	5¼	Colle di Tenda, *Italy*	5
Tauren, *Austria*	5¼	Connaught, *Canada*	5
Otira, *N. Z.*	5		

MOUNTAIN PASSES

	ft. high		*ft. high*
Alpine (Colorado, U S.A.)	13,550	St. Bernard (Swiss Alps)	8,100
Bolan (Baluchistan)	5,880	St. Gotthard (Swiss Alps)	6,936
Brenner (Austrian Alps)	4,588	Shipka (Bulgaria)	4,300
Khybar (Afghanistan)	3,373	Simplon (Swiss Alps)	6,595

FAMOUS CAVES AND CAVERNS

Great Onyx Cave, Kentucky (U.S A.)
Caverns of Luray, Virginia (U.S.A.).
Shenandoah Caverns, Virginia (U.S.A.).
Black Hills, South Dakota (U.S.A.)
Cyracuse, Cicily
Indian Chamber Cave (N.S.W. Australia)
Carlshad Caverns (New Mexico). *Probably the largest in the world.*

HIGHEST DAMS

	ft.		*ft.*
Mouvoisin (Switzerland)	780	Tignes (France)	592
Hoover (U.S.A.)	726	Kurobe (Japan)	590
Glen Canyon (U.S.A.)	700	Grand Dixence (Switz.)	580
Bhakra (India)	680	Hungry Horse (U.S.A.)	564
Shasta (U.S.A.)	602	Grand Coulee (U.S.A.)	550

LARGEST DAMS

	cubic yds.		*cubic yds.*
Fort Peck (U.S.A.)	130,421,014	Hirakud (India)	27,000,000
Oahe (U.S.A.)	79,070,000	Kingsley (U.S.A.)	26,000,000
Garrison (U.S.A.)	67,500,000	Gatun (Canal Zone)	23,000,000
Trinity (U.S.A.)	33,000,000	Denison (U.S.A.)	18,762,000
Fort Randall (U.S.A.)	27,000,000	Sardis (U.S.A.)	16,976,000

SHIP CANALS

	Length in miles		*Length in miles*
Götta (Sweden)	115	Elbe-Trave (Germany)	41
Suez (Egypt)	100	Manchester (England)	35½
Volga-Moscow (U.S.S.R.)	80	Welland (Canada)	27½
Kiel (Germany)	61	Princess Jaliana (Holland)	25
Volga-Don (U.S.S.R.)	60	Amsterdam	16½
Panama (Panama Canal)	50	Corinth	4
		Saulte Ste. Marie (U.S.—Canada)	2¾

GEOGRAPHICAL RECORD-BREAKERS

Highest Mountain System	Himalayas.
Longest Mountain System	Andes.
Highest Plateau	Tibet.
Longest River	Mississippi-Missouri, 4,500 miles long.
Largest River (in volume)	Amazon.
Largest River Basin	Basin of Amazon, 2,720,800 sq. miles.
Largest Salt Water Lake	Caspian Sea.
Largest body of Fresh Water	Superior.
Largest group of Islands	Malaya Archipelago.
Largest Artificial Lake	Lake Mead at Boulder Dam (U.S.A.).
Largest north to south stretch of land	America : N. and S. extend from Arctic to the Antarctic Ocean.
Largest inland sea	Mediterranean Sea.
Largest ship canal	White Sea Canal, 140 miles long.
Deepest Ocean	Pacific Ocean.
Highest Auto Road	Mount Evans Highway (Colorado, U.S.A.).
Highest Capital City	La Paz (Bolivia).
Largest Island	Greenland, 840,000 sq. miles.
Densest population	Monaco (33,898 per sq. mile).
Hottest Region	North-west Sahara, Azizia (Tripolitania), Death Valley (California), and Thar Desert of North-west India.
Coldest Regions	Verkoyansk in North-East Siberia where temperature is 94° below zero
Largest Continent	Asia.
Largest Peninsula	India.
Highest Country	Tibet.
Biggest Ocean	Pacific Ocean.
Most northerly Town	Hemmerfest, Norway, 275 miles north of Arctic circles.
Largest Desert	Sahara (Africa).
Largest City	London (Population, 8,346,000)
Highest Peak	Mt. Everest (29,028 ft.).
Densely Populated Country	China.
Rainiest Place	Cherrapunji (Assam).
Largest Volcano	Mauna Loa (crater 3 7 sq. m.). Largest volcanic mt. in cubic content.
Highest Active Volcano	Kotopaxi (Equador), 19,550 ft.
Smallest Continent	Australia.
Deepest Lake	Lake Baikal (Siberia).
Highest Lake	Lake Titicaca (Bolivia, 12.000 ft above sea).
Saltiest Sea	Dead Sea.
Smallest Independent State	Vatican City (109 acres).
Largest Unbroken Political Unit	U.S.S.R.
Largest Delta	Sundarban delta (8,000 sq. miles).

Geographical Record-Breakers—(*Concld.*)

Longest Thoroughfare ..	Broadway, New York.
Highest City ..	Phari, Tibet, altitude 14,300 ft.
Largest coral formation ..	Great Barrier Reef, (Australia).
Lowest body of water ..	Dead Sea
Deepest place in the ocean	Off the Island of Mindanao, Philippines sounding of 35,410 ft. reached.

WORLD EXTREMES OF CLIMATE

Coldest Place—Verkoyansk (Siberia)—90°F (Feb. 5 & 7, 1892).

Hottest Place—Azizia (Libya)—136°F (Sept 13, 1922)

Minimum recorded Rainfall— 02 inch at Arica, Chile—average yearly fall during 43 years

Highest mean annual temperature—88°F at Lugh, Somali land (Africa).

Lowest mean annual temperature—14°F at Framheim, Antarctica.

Wettest Place—366 inches in one month at Cherrapunji, Assam, July, 1861. Average annual rainfall is 450 inches.

FAMOUS WATERFALLS

	Height (ft)		*Height (ft)*
Angel (Venezuela) .	3 300	Takkakaw (Br Colombia)	1,200
Cuquenan (Br Guiana)	2 000	Widow's Tears (California)	1,170
Sutherland (South Island N Z) .	1 904	Staubbach (Switzerland)	980
Tugela (South Africa)	1,800	Trummelbach (Switzerland)	950
Ribbon (California)	1,612	Middle Cascade (California)	910
Upper Yosomite (California)	1,430	Multnomah (Oregon, U.S.A.)	850
Gavarnie (S France)	1,385	Vettifos (Norway) .	850
Gersoppa (India)	830	King Edward VII (Br Guiana)	840
Kaieteur (Br Guiana)	741	Fairy (Washington, U S A.)	700
Kalambo (N Rhodesia)	705	Skykkjefos (Norway) ..	650
Maradadfos (Norway)	650	Terni (Italy) ..	650

FIVE BIGGEST CITIES

New York	14,066 000	Paris	6,436,296
Tokio	8 471 637		
London	8,270,430		

(*Demographic Year Book, 1957*).

POLAR RECORDS

Arctic

Year	*Explorer*	*No.*	*Latitude*
1854 .	E. K. Kane (U S) .	78°	45′
1871 .	Capt. Hall (U S A.) . ..	82°	11′
1875	Capt. Nares (G.B.) . ..	83°	20′

Polar Records—(*Concld.*)

Artic

Year	*Explorer*	*No.*	*Latitude*
1882	Lieut. Greely (U.S.A.)	83°	24′
1892	Lieut. Peary (U.S.A.)	83°	27′
1895	Fridtjof Nansen (Norway)	86°	14′
1900	Duke d' Abruzzi (Italy)	86°	34′
1902	Lieut. Peary (U.S.A.)	84°	17′
1904	Zeigler Polar Expedition (U.S.A.)	82°	4′
1906	Commander Peary (U.S.A.)	87°	6′
1909	Commander Peary (U.S.A.)	90°	(Pole) ..
1926	Commander Byrd (U.S.A.)*	90°	(Pole) ..
1926	Amundsen-Ellsworth-Nobile†	90°	(Pole) ..
1928	Gen. U. Nobile † (Italy)	90°	(Pole) ..
1937	Pavel Golvin, (*Soviet Russia*)*	90°	(Pole) ..
1937	Otto J. Schmidt and four others* (Soviet Russia)	90°	(Pole) ..
1952	Lt. Col. Benedict (U S.A.F.)	90°	(Pole) ..
1958	U.S. Atom-powered Submarine *Nautilus* passed under the Pole	90°	(Pole) ..

Antarctic

Year	*Explorer*	*No.*	*Latitude*
1774	Capt. Cook (G.B.)	71°	10′
1823	Capt. Weddell (G.B.)	74°	15′
1842	Capt. Rose (G.B.)	78°	10′
1900	Borchgrevink (G.B.)	78°	50′
1902	Capt. Robert F. Scott (G.B.)	82°	17′
1909	Lieut. Shackleton (G.B.)	88°	23′
1911	Roald Amundsen (Norway)	90°	(Pole) ..
1912	Capt. Robert F. Scott (G.B.)	90°	(Pole) ..
1935	L. Ellsworth* (U.S A.)	76°-79°	58′
1947	Adml. Richard Byrd† (U.S A.)	90°	(Pole) ..
1958	Sir Edmund Hillary (New Zealand)	90°	(Pole) ..
1958	Dr. Vivian Fuchs (G.B.)	90°	(Pole) ..

FIRST ASCENTS OF MOUNTAINS

Mont. Blanc (France-Italy), M. G. Paccard & J. Balmat, 1786.

Jungfrau (Switzerland), J. R. & H. Meyer, 1811.

Matterhorn (Switzerland), E. Whymper, 1865.

Elbruz (Caucasus), D. W. Freshfield, A. W. Moore, & C. C. Tucker, 1868.

Mt. St. Elias (Alaska), Duke of Abruzzi, 1897.

Mt. Kenya (Kenya), H. J. Macinder, 1899.

Ruwenzori (Central Africa), Duke of Abruzzi, 1906.

Mt. McKinley (Alaska), Parker-Browne Expdt.

---

* By airplane.

† By airship.

Mt. Logan (Alaska), A. H. McCarthy, 1925.

Illampu (Bolivia), German-Austrian Expedition.

K^2 (*Godwin Austen*, Karakoram), Italian Expedition, July 31, 1954.

Everest (Nepal), British Expedition, 1953.

Kanchenjunga (Nepal), British Exp. led by Charles Evans, May 25, 1955.

Chimborazo (Ecuador), E. Whymper, 1880.

Mt. Cook (New Zealand), W. S. Green, 1882.

Kilimanjaro (Tanganyika), Meyer, 1887.

Aconcagua (Argentina), M. Zurbriggen, 1897.

Mt. Cho-Oyun (Nepalese Himalayas), by Austrian Expedition Oct. 19, 1954.

Nanga Parvat by Austrian-German Exp. led by Peter Schenbrenner, July 4, 1953.

Mt. Annapurna by Maurice Herzog (French), June 3, 1950.

Mt. Nunkum (Jammu & Kashmir) by French Exp. Aug. 28, 1953.

Lhotse by Swiss Expidition, May, 1956

Makalu by French Expedition, May, 1955

Mansalu by Japanese Expedition, May, 1956.

GENERAL INFORMATION

LONGEST RAILWAY STATION PLATFORMS

	feet
Storvik (*Sweden*)	2,470
Sone (*India*)	2,415
Kharagpur (*India*)	2,330
Bulawayo (*Rhodesia*)	2,302
New Lucknow (*India*)	2,250
Bezwada (*India*)	2,210
Manchester Victoria Exchange (*Eng.*)	2,194
Jhansi (*India*)	2,025
Kotri (*N.W.R., Pakistan*)	1,896
Mandalay (*Burma Railways*)	1,788
Bournemouth (*Eng.*)	1,734
Perth (*Scotland*)	1,714
York (*Eng.*)	1,704
Cambridge (*Eng.*)	1,629
Edinburgh (*Scotland*)	1,608
Aberdeen (*Scotland*)	1,596
Trichinopoly (*India*)	1,546
Ranaghat (*India*)	1,522
Crewe (*Eng.*)	1,509
Dakor (*India*)	1,470
Victoria (*Eng.*)	1,480
New Castle (*Eng.*)	1,365
Bristol (*Eng.*)	1,300

LONGEST BRIDGES

(*With length in feet of waterways*)

Lower Zambesi (*Africa*)	11,322
Storsstromsbroen (*Denmark*)	10,499
Tay Bridge (*Scotland*)	10,289
Sone Bridge (*India*)	9,839
Godavari (*India*)	8,881
Forth Bridge (*Scotland*)	8,291
Rio Salado (*Argentina*)	6,703
Golden Gate (*U.S.A.*)	6,260
Rio Dulce (*Argentina*)	5,866
Hardinge (*Pakistan*)	5,384
Victoria Jubilee (*Canada*)	5,325
Moerdijk (*Netherlands*)	4,698
Sydney Harbour (*Aust.*)	4,124
Jacques Carlier (*Canada*)	3,890
Queensborough (*U.S.A.*)	3,720
Brooklyn (*U.S.A.*)	3,451
Torun (*Poland*)	2,291
Quebec Bridge (*Canada*)	3,205

NOTABLE TELESCOPES

REFRACTOR			*REFLECTOR*		
Size in inches	*Observatory*	*Location*	*Size in inches*	*Observatory*	*Location*
40	*Yerkes*	William Bay U.S.A.	200	*Palomar*	Mt. Palomar, California
86	*Lick*	Mt. Hamilton, California	100	*Mt. Wilson*	Pasadena, Cali.
32½	*Univ. of Paris*	Meudon, France	74	*Dunlap*	Richmond Hill, Canada
31½	*Astrophysical*	Potsdam, Germany	72	*Dominion Astrophysical*	Victoria, B.C.
30	*Alleghny*	Pittsburgh, U.S.A.	69	*Perkins*	Delaware, U.S.
			61	*Harvard*	Harvard, U.S.
30	*Bischoffsheim*	Nice, France	60	*Bloemfontein*	S. Africa
30	*Poulkova*	Leningrad U.S.S.R.	60	*Mt. Wilson*	Pasadena, U.S.
30	*Poulkova*	Leningrad U.S.S.R.	60	*Cordoba*	Argentina

LARGEST BELLS

	weight (tons)		*weight (tons)*
Tsar Kolokol (*Moscow*) 1733	180	Great Bear (*York Minister, Eng.*)	17
Moscow Bell (*Moscow*)	128	Great Paul (*St. Paul's Cathedral,* Eng.)	16¾
Upper Burma Bell	80	Great Tom (*Oxford*)	7½
Great Bell of Peking	53	Great Tom (*Lincoln, Eng.*)	5½
Nanking Bell	22	Indenendence Hall Bell (*Philadelphia*)	6½
Olmütz Bell	17	Big Ben (*West Minister Clock Tower, Eng.*)	13½
Vienna Bell (1711)	17	Cologne Cathedral Bell	25
Notre Dame Bell (1680)	17	River-side Church Bell (*New York*)	18¼
Erfurt Bell	13		

TALL BUILDINGS AND TOWERS

	No. of stories	*feet*		*No. of stories*	*feet*
Empire State (N.Y.)	102	1.250	**R.C.A. (U.S.)**	70	850
Chrysler (N.Y.)	77	1,046	**Woolworth (N.Y.)**	60	792
Eiffel Tower (Paris)	..	984	**City Bank (N.Y.)**	54	745
60 Wall Tower (N.Y.)	66	950	**Terminal Tower (U.S.)**	52	708
Bank of Manhattan (N.Y.)	71	927	**500 5th Avenue**	60	700
			Metropolitan (N.Y.)	50	700

Tall Buildings and Towers—(*Concld.*)

	No. of stories	*feet*
Chanin Tower (U.S.)	56	680
Lincoln (U S)	53	673
Irvine Trust (U S)	50	654
General Electric (U S)	50	641
Waldorf-Astoria (N Y.)	49	625
Cathedrals		
Ulm Cathedral (Ger.)	..	529
St. John the Divine (N.Y)	..	500
Cologne Cathedral	..	512
Rouen Cathedral (Fr.)	..	485
Straussburg Cathedral (Germany)	..	468
St Stephen's Cathedral (Vienna) ..	..	441
Salsbury	..	440
Seville	..	400
Antwerp	..	397
Pyramid of Cheops (Egypt) ..	..	450

WORLD'S LONGEST SPANS BY TYPES OF BRIDGES

Type	*Bridge*	*Location*	*Year Completed*	*Span (ft)*
Cable Suspension	Golden Gate	San Francisco	1937	4,200
Transporter Bridge	†Sky Ride	Chicago	1933	1,850
Cantilever	*Quebec	Canada	1917	1,800
Steel Arch	Kill Van Kull	New York	1931	1,652
Eyebar Suspension	*Florianopolis	Brazil	1926	1,114
Concrete Arch	Sando	Sweden	1943	866
Continuous Truss	Dubuque	Mississippi River	1943	845
Simple Truss	*Metropolis	Ohio River	1917	720
Continuous Girder	Dusseldorf-Neuss	Rhine River	1951	676
Vertical Lift	*Cape Cord Canal	Massachusetts	1935	544
Wichert Truss	Homestead	Pittesburgh (U S)	1937	533½
Swing Span	*Fort Madison	Mississippi River	1927	526
Tubular Girder	*Britannia	Menai Strait	1850	460
Timber Span	Wettingen	Switzerland	1758	396
Pretressed Concrete Girder	Worms	Germany	1953	375
Bascule	*Soult Ste. Marie	Michigan	1914	336
Simple Girder	Harlem River	New York	1951	330
Masonry Arch	Plauen	Germany	1903	260
Single-Leaf Bascule	*16th St.	Chicago	1919	260
Concrete Girder	Villeneuve	France	1939	256

---

* Railroad Bridge. † Not standing.

BIGGEST, LARGEST, GREATEST, LONGEST

Largest Archipelago	Indonesia.
Highest Mountain Peak	Mount Everest (29,028 ft.).
Largest Desert	Sahara (Africa) 3,000,000 sq. m.
Largest Palace	Vatican (Rome).
Biggest Ship	Queen Elizabeth (83,673 tons).
Largest Diamond Mine	Kimberly, South Africa.
Tallest Statue	Statue of Liberty (N Y.) from heel to head 111 ft , base of the pedastal to the top of the torch 305 ft.
Tallest Church	Ulm. Cathedral (Ger. 529 ft. high).
Largest Church	Church of St. Peters (Rome).
Largest Diamond	The Cullinan.
Rainiest Place	Cherrapunji, Assam
Biggest & Deepest Ocean	Pacific Ocean (64,000,000 sq m.).
Longest Corridor	Rameswaram Temple Corridor, S. India. About 4,000 ft long.
Longest Rly. Platform	Storvik (Sweden) 2,470 ft
Largest Pearl	Beresford Hope Pearl (1 800 grams).
Largest Bell	*Tsar Kolokol*, Kremlin (Moscow) weighs 180 tons.
Largest Concrete Structure	Grand Dixence (Switzerland).
Largest Sewage Disposal Plant	Chicago Sewage System (U S A.).
Longest man-made water supply line	Colorado Aqueduct (242 miles, U S A).
Deepest Mine	Ooregum Section of the Kolar Gold Fields, Mysore, nearly 10,000 ft deep.
Longest Railway Run	Riga to Vladivostock (6,000 miles).
Largest Telescope	At Mt Palomar, California, diameter of reflector is 200 inches.
Largest Museum	British Museum (London).
Longest River	Mississippi-Missouri.
Largest River (in vol.)	Amazon
Largest Railway Station	Grand Central Terminal (New York) with 47 platforms
Largest Dome	Gol Gambuz (Bijapur) 144 ft.
Largest Building	The Pyramid at Gizeh, Egypt.
Tallest Tower	Eiffel Tower, Paris, 984 ft. high.
Largest group of Islands	Malaya Archipelago
Largest Delta	Sundarban Delta, 8,000 sq. m.
Largest Royal Palace	The Palace at Madrid.
Deepest hole	An oil well of 15,279 ft. in Texas, U.S.
Highest capital city	La Paz (Bolivia).
Highest Straight Gravity Dam	Bakra Dam (India) 680 ft.
Largest Theatre	Blanquita Theatre (Havana) with 6,500 seats.

Biggest, Largest, Greatest, Longest—(*Contd.*)

Longest Dam ..	Gabel Awlia Dam, Egypt (16,400 ft. long).
Highest Dam ..	Manvoisin (Switzerland, 776 ft).
Largest Single Country ..	Brazil (3,285.319 sq. miles).
Largest Freshwater Lake ..	Lake Superior.
Highest Lake ..	Lake Titicaca (South America), altitude 12,507 ft.
Loftiest active volcano ..	Cotopaxi (19,550 ft.), Equador.
Largest & populous continent	Asia.
Longest Wall ..	Great Wall of China over 1,500 miles.
Highest Suspension Bridge	Royal Gorge, Colorado, U.S.A. 12,740 ft. high.
Tallest Building ..	Empire State Building (102 stories, 1,472 ft).
Highest Country ..	Tibet (Averaging 16,000 ft.).
Largest office building ..	Pentagon (U.S.A.) 34 acres, where 32,000 people work daily ; floor area. approximately 6,500,000 sq. ft. has 17 miles of corridor.
Longest Tunnel ..	East Finchley-Morden 17¼ miles.
Largest Peninsula ..	India.
Highest Tree ..	Giant Sequoia tree, Hamboldt State Park, California—364 ft. high and estimated to weigh nearly 2,000 tons.
Largest Island ..	Greenland (827,200 sq. miles).
Densest Population ..	Monaco (33,898 per sq. m.).
Largest Planetary Body ..	Jupiter.
Biggest Park ..	Yellowstone National Park (U.S.A.). 3,350 sq. miles.
Largest Archway ..	Sydney Harbour Bridge (Australia).
Highest City ..	Phari, Tibet, altitude 14,300 ft.
Highest Airfield ..	Ladakh airfield (Kashmir), 14,230 ft.
Longest Thoroughfare ..	Broadway in New York.

GREAT INVENTIONS

Invention	*Date*	*Inventor*	*Nation*
Adding Machine ..	1888	Burroughs	U.S.
Airbrake ..	1869	Westinghouse	U.S.
Airplane (*Powered*) ..	1903	Wright Bros.	U.S.
Airplane, helicopter ..	1916	Breanan	Eng.
Airplane, Jet engine ..	1930	Whittee	Eng.
Airship, Petrol ..	1898	Dumont	Brazil
Airship, rigid ..	1899	Zeppelin	Ger.
Aluminium ..	1827	Wohler	Ger.
Autogiro ..	1920	Dela Cierva	Sp.
Atomic Bomb ..	1945	U.S. Scientists	
Automobile, gasoline ..	1887	Daimler	Ger.
Bakelite ..	1907	Baekeland	U.S.

Great Inventions—(*Contd.*)

Balloon	**1783**	**Montgolfier Bros.**	**Fr.**
Barometer	**1643**	**Torriceli**	**Italy**
Braille alphabet	**1829**	**Braille.**	**Fr.**
Bicycle (modern)	**1884**	**Starley**	**Eng.**
Block Signals, Ry.	**1867**	**Hall**	**U.S.**
Burner, Gas	**1855**	**Bunsen**	**Ger.**
Cash register	**1879**	**Ritty**	**U.S.**
Camera lucida	**1807**	**Wollaston**	**Br.**
Camera obscura	**1560**	**Porta**	**It.**
Cinematograph	**1889**	**Friese-Greene**	**Eng.**
Do. Talking	**1927**	..	**U.S.A.**
Caterpiller Tractor	**1903**	**Holt**	..
Carburetor	**C1889**	**Maybach**	**Ger.**
Cellophane	**1902**	**Brandenberger**	**Swiss**
Celluloid	**1865**	**Parkes**	**Eng.**
Cement, Portland	**1845**	**Aspdin**	**Eng.**
Compass	**1269**	**de Maricourt**	**France**
Clock—Pendulam	**1657**	**Huygens**	**Dutch**
Cream Separator	**1897**	**de Laval**	**Sweden**
Camera, Kodak	**1888**	**Eastman**	**U S.**
Cyclotron	**1930**	**E. Lawrence**	**U.S.**
Diesel engine	**1895**	**Diesel**	**Ger.**
Dictaphone	**1885**	**C. Tainter**	**U.S.**
Dynamite	**1867**	**Nobel**	**Sweden**
Dynamo	**1831**	**Faraday**	**Eng.**
Elevator, brake	**1862**	**Otis**	**U.S.**
Engine, automobile	**1879**	**Benz**	**Ger.**
Electric Arc Light	**1809**	**Davy**	**Eng.**
Electrotype	**1838**	**de Jacobi**	**Ger.**
Engine, internal combustion	**1885**	**Daimler**	**Ger.**
Engraving, half-tone	**1893**	**Ives**	**U.S.**
Electric light, incandescent	**1879**	**Edison**	**U.S.**
Electric Fan	**1887**	**Wheeler**	..
Fountain Pen	**1884**	**Waterman**	**U S.**
Galvanometer	**1820**	**Scheiger**	**Ger.**
Gas lighting	**1792**	**Murdoch**	**Scotland**
Gramophone	**1877**	**Berbner**	**U.S.**
Generator, Atomic	**1951**	**U. A. C. Scientists**	**U.S.**
Glider	**1855**	**Le Bris**	**Fr.**
Guided Missle	**C1926**	**German Ordnance Experts**	**Ger.**
Gun Powder	**unknown**		**China**
Gun cotton	**1865**	**Schoenbein**	**Ger.**
Gyroscope	**1852**	**Foucault**	**Fr.**
Gyrocompass	**1905**	**Sperry**	**U.S.**
Gas mantle	**1893**	**Welsbach**	**Aus.**
Glass, laminated	**1909**	**Benedictus**	**Fr.**

Great Inventions—(*Contd.*)

Heliograph	1877	Mance	Eng.
Hydrogen Bomb	1950	U.S. Atomic Scientists	U.S.
Hydrometer	1768	A. Baume	France
Hygrometer	1820	Daniell	Eng.
Iridium	1802	Brewster	Eng.
Ice-making machine	1851	Gorrue	U.S.
Indigo, synthetic	1880	Baeyer	Ger.
Iron lung	1928	Philip & Shaw Drinker	U.S.
Jacquard Machine	1809	J Jacquard	Fr.
Jet Propulsion	1936	F. Whittle Walker	Eng.
Lamp, arc	1879	Brush	U.S.
Lamp, incandescent	1879	Edison	U.S.
Lamp, Mercury-Vapour	1912	Hewtit	U.S.
Lamp, Safety	1816	Davy	Eng.
Lightning rod	1749	Franklin	U.S.
Linoleum	1860	Walton	Eng.
Linotype	1884	Mergenthaler	U.S.
Locomotive, 1st practical	1829	Stephenson	Eng.
Locomotive, Steam	1804	Trevithil	Eng.
Loom, power	1785	Cartwright	Eng.
Lithography	1796	Senefelder	
Machine gun	1862	Gatling	U.S.
Margarine	1868	Mege-Mouries	Fr.
Match, Safety	1855	Lundstrom	Swed.
Match, friction	1827	Walker	Eng.
Match, phosphorous	1831	Sauria	Fr.
Metronome	1866	J. Malzel	Ger.
Micrometer	1638	Gascoigne	Eng.
Microphone	1877	Berliner	U.S.
Monotype	1887	Lanston	U.S.
Motor A C.	1892	Tesla	U.S.
Motor Car (Petrol)	1887	Daimler	Ger.
Motor Cycle	1885	(do)	Ger
Mower lawn	1868	Hills	U.S.
Movie Machine	1893	Edison	U. S.
Movie Projector	1894	Jenkins	U.S.
Movie 3-dimension	1952	Walker	U.S.
Mowing Machine	1810	P Gaillard	U.S.
Nylon	1937	Du Pont	U.S.
Parachute	1783	Lenormand	France
Percussion Cap	1816	Shaw	U.S.
Phosphorus	1669	Brandt	Ger.
Pendulum	1581	Galileo	Italian
Phonograph	1877	Edison	U.S.
Photo, Colour	1891	Lippman	Fr.
Photo film	1888	Eastman-Goodwin	U.S.
Photography	1814	Niepce	Fr.
Pin, Safety	1849	Hunt	U.S.
Piano	1709	Cristofori	It.

Great Inventions—(*Concld.*)

Powder, Smokeless	1863	Schultze	Ger.
Printing, Movable type	1440	Guttenburg	Ger.
Printing Press, Rotary	1847	R. Hoe	U.S.
Pneumatic Rubber Tyre	1888	Dunlop	U.S.
Propeller, Screw	1937	Ericsson	Sweden
Radar	1935	Sir R. Wall	Scotland
Radio telephone	1906	De Forest	U.S.
Radio	1895	Marconi	Italy
Radio beacon	1928	Donovan	U.S.
Radioactivity	1896	Becquerel	Fr.
Railway, Steam	1825	Stephenson	Eng.
Rayon	1883	Swan	Eng.
Rubber, vulcanised	1839	Goodyear	U.S.
Revolver	1830	Colt	U.S.
Rifle	1520	Kolter	Ger.
Record, Disc	1896	Berliner	U.S.
Semaphone	1794	Chappe	Fr.
Sextant	1590	Brahe	Ger.
Soda water	1907	Thomson	Eng.
Spectacles	1310	Armatus	It.
Spectroscope	1861	Kirchhoff & Bunsen	Ger.
Steamboat	1807	Fulton	U.S.
Sewing Machine	1830	Thimmonur	French
Sleeping Car	1897	Pullman	U.S.
Steam Engine	1765	Watt	Eng.
Spinning Jenny	1769	Hargreaves	Eng.
Steel	1857	Bissemer	Eng.
Steel, Stainless	1916	Brearly	Eng.
Stereoscope	1838	Wheatstone	Eng.
Submarine	1891	Holland	U.S.
Talking Machine	1877	Edison	U.S.
Tank, military	1914	Swinton	Eng.
Telegraph, Magnetic	1832	Morse	U.S.
Telephone	1876	Bell	U.S.
Tractor, Caterpiller	1900	Holt	U.S.
Telephone amplifier	1912	De Forest	U.S.
Telescope, Reflecting	1688	Newton	Eng.
Telescope Refractive	1250	Roger Becon	Eng.
Television	1926	Baird	Scotland
Thermometer (Air)	1592	Galileo	Italian
Torpedo	1870	Whitelead	Eng.
Thermometer	1701	Reaumer	Fr.
Thermometer	1714	Fahrenheit	Ger.
Tire, Pneumatic	1888	Dunlop	U.S.
Typewriter	1868	Sholes	U.S.
Tank, Military	1914	Swinton	Eng.
Welding, Electric	1877	Thomson	U.S.
Waterproofing, rubber	1823	Macintosh	Eng.
Wireless Telephone	1902	Fessenden	U.S.
X'Ray	1895	Roentgen	Ger.

DISCOVERIES AND INVENTIONS IN ELECTRICITY

1745—Von Kleist : Leyden jar condenser.
1752—Franklin : Lightning rod and nature of lightning.
1805—Brugnatelli (It.) : Electroplating.
1809—Davy (Eng.) : Electric Arc lamp.
1816—Rene Lainnec : Stethoscope.
1823—Sturgeon (Br.) : Electromagnet.
1825—Faraday (Eng.) : Benzine.
1826—Balard (Fr.) : Bromine.
1828—Renry : Electromagnetism and induction.
1831—Faraday (Br.) : Electric dynamo.
1832—Morse : Electric telegraph.
1834—Moritz Jacobi : Electric Motor.
1852—Gauss : System of absolute electric measurements.
1861—Paccinnote (It.) : Electric armature.
1870—Gramme : First industrial dynamo.
1791 Galvani : Theory of animal electricity.
1800—Bolta (It.) : Electric battery.
1876—Bell : Telephone.
1878—Crookes : Cathode ray.
1879—Edison : Electric incandescent lamp.
1885—Stanley : Electric Transformer.
1888—Hertz (Ger.) : Electrical Waves.
1892—Tesla : Alternating current motor.
1892—Steinmetz : Laws of alternating current.
1895—Roentgen : X-ray.
1896—Marconi : Practical wireless.
1897—Thomson : Isolation of the electron.
1904—Fleming : First diode radio tube.
1907—De Forest : Triode radio tube.
1914—Coolidge : Tungsten filament lamp.
1925—Baird : Television.

DISCOVERIES IN MEDICINE AND PHYSIOLOGY

1628—Harvey (Eng.) : Blood Circulation.
1675—Leeuwenhoek : Bacteria.
1737—Linnaeus : Classification of plants and animals.
1796—Jenner : Vaccination for small-pox.
1810—Davy (Eng.) : Chlorine.
1812—Courtirs (Fr.) : Iodine.
1812—Courtois : Iodine.
1818—Faraday (Eng.) : Ether anaesthetic).
1819—Laennec : Invention of stethoscope.
1820—Pelletier & Caventon (Fr.) : Quinine.
1825—Scheele (Swed.) : Glycecerine.
1831—Eugene Souberran : Chloroform.
1842—W. Long (U.S.) : Anesthetic ether.
1847—Simpson (Eng.) : Chloroform.
1865—Lister (Eng.) : Antiseptic surgery.
1880—Nicolaier : Discovery of titanus germs.
1880—Eberth (Ger.) : Discovery of typhoid bacillus.
1882—Metchnikov : Function of white blood corpuscles.
1882—Koch (Ger.) : Tuberculosis bacteria.
1883—Klebs : Diphtheria bacillus.

Discoveries In Medicine And Physiology—(*Concld.*)

1885—Pasteur (Fr.) : Preventive of rabies.
1890—Emil von Behring (Ger.) : Diphtheria antitoxin.
1894—Kitasato : Discovery of plague bacillus.
1894—Roux : Perfection of diphtheria antitoxin.
1899—Dresser (Ger.) : Aspirin.
1901—Takamine : First hormone isolated. Isolation of adrenaline.
1906—Wasserman : Test for syphillis.
1907—Shull : Development of hybrid corn.
1907—Willstatter : Constitution of chlorophyll.
1910—Pavlov : Conditioned reflex.
1910—Ehrlich : Salvarsan.
1912-14 —E. V. McCollum : vitamine A.
1912—A. Holst : Vitamin C.
1913—Schick : Test of susceptibility to diphtheria.
1913—Goldberger : Cause and control of pellagra.
1914—Dr. Luis Agote (Argentina) : citrated blood transfusion.
1915-16--E. V. McCollum : Vitamine B.
1918—Rabi (Ger.) : Quinine, synthetic.
1920—Calmette, Guerin (Fr.) : BCG.
1922—E. V. McCollum : Vitamin D.
1922—E. V. McCollum : Vitamin Insulin.
1926—Minot, Whippole and Murphy : Liver treatment of anaemia.
1929—Sir A. Fleming : Penicillin.
1932—Domagk : Sulfa drugs as bactericides.
1932 —H. C. Urey : Deuterium .
1934 --Domagk (Ger.) : Sulfanilamide.
1935—W. M. Stanley : Virus, crystalized.
1940—Robin (U.S) : Sulfadiazine.
1945—Waksman (U.S.) : Streptomycin.
1946 —Du Vigneaud : Synthetic penicillin.
1948—B. M Duggar (U.S.) : Aureomycin.
1949 —Armour & Co. (U.S.) : Acth.
1950 —Finlay (U.S.) : Terramycin.
1953—Salk (U.S.) : Polio vaccine.

THEORIES

Alternating Current, Laws of : Steinmetz, 1592.
Atomic Theory : John Dalton, 1803.
Atomic numbers : H. Moseley, 1913.
Atom Smashing Theory : Ratherford, 1919.
Blood circulation : W. Survey, 1628.
Classification of Plants & Animals : C. Lennaeus, 1737-53.
Combustion, Nature of : Lavoisier, 1777.
Conditioned Reflex : I. Pavlov, 1910.
Displacement of water, Theory of : Archimedes, 3 Century B.C.
Dynamic theory of heat : Kelvin, 1851.
Electromagnetic Waves : Hertz, 1886.
Electron, Wave nature of : Louis de Broglie, 1924.
Evolution by natural selection : Darwin, 1859.

Theories—(*Concld.*)

Falling bodies, law of : Galileo, 1590.
Gravitation, Law of : Newton, 1687.
Germ Theory : Pasteur, 1876.
Gases, Laws governing : Joseph Gay-Lussac, 1809.
Heredity, Laws of : G. Mendel, 1865.
Intelligence testing, modern : A. Binet & T. Simon, 1905.
Isotopes, Theory of : F. Soddy, 1912.
Light, Electromagnetic theory of : J. C. Maxwell, 1873.
Multiple proportion, Laws of : John Dalton, 1808.
Molecular hypothesis : A. Avogadro, 1811.
Ohm's Law : G. S. Ohm, 1827.
Origin of Species : Darwin, 1859.
Periodic table : D. Mendeleev, 1869.
Photo-electric cell, Principles of: A. Becquerel, 1839.
Psychoanalysis : S. Freud, 1904.
Quantum Theory : Max Von Plank, 1901.
Refraction of light, Laws of : W. Snell, 1621.
Relativity, theories of : A. Einstein 1905-53.
Spectrum Analysis : R. Bunsen & G. Kirchnoff, 1859.
Sulfanilamide Theory : Gelmo (Gr.), 1908.
Uranium fission theory : Hahn, (Gr.), Bohr. (Danish), Fermi (Italian), Wheeler, Einstein (U.S.).
Water, Synthesis of : H. Cavandish, 1781.

NOBEL PRIZES

Physics

1901	W. K. Roentgen (Ger.).
1902	H. A. Lorentz and P. Zeeman (Denmark).
1903	A. H. Becquerel, France and Pierre and Marie Curie (France).
1904	Lord Rayleigh (England).
1905	Philipp Lenard (Ger.).
1906	J. J. Thomson (Eng.).
1907	A. A. Michelson (U.S.).
1908	G. Lippman (France).
1909	G. Marconi (Italy) and F. Braun (Germany).
1910	J. D. Van der Waals (Holland).
1911	W. Wien (Ger.).
1912	Gustaf Dalen (Sweden).
1913	H. Kamerlingh-Onnes (Denmark).
1914	M. Von Laue (Ger.).
1915	W. H. Bragg and W. L. Bragg (Eng.).
1916	*No award.*
1917	C. G. Barlka (Eng.).
1918	Max Planck (Germany).
1919	J. Stark (Ger.).
1920	C. E. Guillaume (Switz.).
1921	A. Einstein (Ger.).
1922	Niels Bohr (Denmark).
1923	R. A. Millikan (U.S.).
1924	Karl M. G. Seigbahn (Sweden).
1925	James Franck (Ger.). & Gustav Hertz (Ger.).
1926	Jean B. Perrin (France).
1927	Arthur Compton (U.S.) and Prof. Charles T. R. Wilson (Eng.)
1928	Prof. O. W. Ricardson (Eng.).
1929	Duc L. V. de Broglie (Fr.).
1930	Sir C. V. Raman (India).
1931	*No award.*
1932	W. Heisenberg (Ger.).

Physics—(*Concld.*)

1933 P. A. M. Dirac (Eng.) and Erwin Schroedinger (Austria).
1934 *No award.*
1935 J. Chadwick (Eng.).
1936 V. F. Hees (Austria) and C. D. Anderson (U.S.).
1937 C. J. Davisson (U.S.). G. P. Thomson (Eng.).
1938 E. Fermi (Italy).
1939 E. O. Lawrence (U.S.).
1940-42 *No awards.*
1943 Otto Stern (U.S.).
1944 I. I. Rabi (U.S.).
1945 W. Pauli (Austria).
1946 P. W. Bridgman (U.S.).
1947 Sir E. Appleton (Eng.).
1948 P. M. S. Blackett (Eng.).
1949 Hideki Yukawa (Japan).
1950 C. F. Powell (Eng.).
1951 Sir John Cockcroft (Eng.) and E T. S. Walton (Eire).
1952 E.M. Purcell & Felix Bloch (U S)
1953 Prof. Fritz Zernike.
1954 Dr. S. Max Born & Walther Bothe (Ger.).
1955 W. E. Lamb & P. Kusch (U.S.).
1956—Walter H. Brattain, W. Shockley & John Bardeen (U.S.).
1957 Dr. Tsung Dao Lee & Chen Ming Yang (China).

Medicine and Physiology

1901 El. A. von Behring (Ger.).
1902 Sir Ronald Ross (Eng.).
1903 N. R. Finsen (Denmark).
1904 Ivan P. Pavlov (Russia).
1905 Robert Koch (Germany).
1906 Ramony Cajal (Spain) & Camillo Golgi (Italy).
1907 C. L. A. Laveran (France).
1908 Paul Ehrlich (Ger.) & E. Metchnikoff (Fr.).
1909 T. Kocher (Germany).
1910 A. Kossel (Germany).
1911 A. Gullstrand (Sweden).
1912 A. Carrel (America).
1913 Charles Richet (France).
1914 R. Barnay (Austria).
1915-18 *No award.*
1919 Dr. J. Bordet (Belgium).
1920 August Krogh (Denmark).
1921 *No award.*
1922 A. V. Hill (Eng.) and Otto Mayerhoff (Ger.).
1923 F. G Banting and Dr. J. J. R. McLeod (Canada).
1924 W. Einthoven (Holland).
1925 *No award.*
1926 J. Fibiger (Denmark).
1927 Julius W. Jauregg (Aust.).
1928 Charles Nicolle (France).
1929 F. G. Hopkins (Eng.). & C. Eijkmann (Holland).
1930 Karl Landsteiner (U.S.)
1931 Otto H. Warburg (Ger.).
1932 Sir C. Sherrington & E. D. Adrian (Eng.).
1933 T H. Morgan (U.S.).
1934 G. R. Minot, W. P. Murphy and G. H. Whipple (U.S.).
1935 Hans Spemann (Ger.).
1936 Sir Henry Dale (Eng.) & Prof. Otto Loewe (Aust.).
1937 Albert von Szent-gyorgyi (Hungary).
1938 C. Heymans (Belg.).
1939 Prof. G. Domagk (Ger.).
1940-42 *No award.*
1943 Henrik Dam (Copenhagen) and Edward Doisy (U.S.).
1944 Joseph Erlanger and H. S. Gasser (U S.).
1945 Sir A. Fleming, Sir Howard Florey and Dr. E. B. Chain (Eng.).
1946 H. J. Muller (U.S.).
1947 Dr. Carl F. and Mrs. F. Cori (Czechoslovakia) and B. A. Houssay (Argentina).
1948 Paul Muller (Swiss.).

Medicine and Physiology—(*Concld.*)

1949 W. R. Hess (Swiss) & A. C. D. F. E. Moniz (Portugal).
1950 E. C. Kendall & Philip S. Hench (Switzerland) & T. Reichstein (Swiss.).
1951 Max Theiler (U.S.).
1952 S. Waksman (U.S.).
1953 Dr. Fritz A. Lipmann & Dr. Hans A. Krebs.
1954 Drs. J. F. Enders, F. Robbins & T. Weller (U.S.).
1955 Hugo Theorell (Sweden).
1956 Andre Cournand (U S.), Dr. W. Forsmann (Ger) & D W. Richards (U.S.).
1957 Daniel Bovet (Italy).

Chemistry

1901 J. H. Hoff (Holland).
1902 Emil Fischer (Germany).
1903 S. A. Arrhenius (Sweden).
1904 Sir W. Ramsay (Eng.).
1905 A. Von Baeyer (Ger.).
1906 Henri Moissan (France).
1907 E. Buchner (Germany).
1908 Ernest Rutherford (Eng.).
1909 Wilhelm Ostwald (Ger.).
1910 Otto Wallach (Ger.).
1911 Marie Curie (France).
1912 V. Grignard and P. Sabatier (France).
1913 Alfred Werner (Swiss.).
1914 T. W. Richards (Eng.).
1915 R. Willstatter (Ger.).
1916-17 *No award.*
1918 Firtz Haber (Germany).
1919 *No award.*
1920 Walther Nernst (Ger.).
1921 Frederick Soddy (Eng.).
1922 F. W. Aston (Eng.).
1923 Fritz Pregl (Austria).
1924 *No award.*
1925 R. Zsigmondy (Ger.).
1926 T. Svedberg (Sweden).
1927 H. Wieland (Ger.).
1928 Dr. Adolf Windaus (Ger.).
1929 A. Harden (Eng.) and K. A. S. von Euler-Cheplin (Sweden).
1930 Hans Fischer (Germany).
1931 Carl Bosch and F. Bergius (Germany).
1932 Irving Langmair (U.S.).
1933 *No award.*
1934 H. C. Urey (U.S.).
1935 Frederic & Irene **Joliot-Curie** (France).
1936 Peter J. W. Debye (**Ger.**).
1937 W. N. Haworth (Eng.) & Paul Karrer (Swiss.).
1938 R. Kuhn (Ger.).*
1939 A. Butenandt (Ger.) **and** Leopold Ruzicka (Swiss.).
1940-42 *No award.*
1943 G. Hevesy (Hun.).
1944 Otto Hahn (Ger.).
1945 Artturi Virtanen (**Finland**).
1946 James B. Sumner, W **M.** Stanley & J. H. **Northrop** (America).
1947 Robert Robinson (Eng.).
1948 Arne Telius (Sweden).
1949 W. F. Giauque (U.S.A.).
1950 Otto Diels & Kert **Adler** (Germany).
1951 E. M. McMillian & **G. T.** Seaborg (U S.A.).
1952 Dr. A. J. P. Martin & **R.** L. M. Synge (Eng.).
1953 Dr. H. Staudinger
1954 Dr. L. Pauling (U.S.A.).
1955 D. Vincent du Vigneaud.
1956 Sir Cyril Hirshelwood (Eng.) & Prof. **Nikolai** Semenov (U S S R.).
1957 Sir A. Todd (Eng.).

---

* **Declined.**

Literature

1901 Rene F. A. Sully-Frudhomme (France).
1902 T. Mommsen (Germany).
1903 B. Bjornson (Norway).
1904 F. Mistral (France) & Jose Echegaray (Spain).
1905 H. Sienkiewicz (Poland).
1906 G. Carduici (Italy).
1907 Rudyard Kipling (Eng.).
1908 R. Eucken (Germany).
1909 Selma Largerlof (Sweden).
1910 Paul Heyse (Germany).
1911 M. Maeterlink (Belgium).
1912 G. Hauptmann (Ger.).
1913 Rabindranath Tagore (India).
1914 *No award.*
1915 Romain Rolland (France).
1916 V. Heidenstam (Sweden).
1917 Karl Gjellerup and H. Pontoppidan (Denmark).
1918 *No award.*
1919 C. Spitteler (Swiss.).
1920 Knut Hamsun (Norway).
1921 Anatole France (France).
1922 J. Benavente (Spain).
1923 W. B. Yeats (Ireland).
1924 W. Reymont (Poland).
1925 G. B. Shaw (Eng.).
1926 Grazia Deledda (Italy).
1927 Henri Bergson (France).
1928 Sigrid Undset (Norway).
1929 Thomas Mann (Germany).
1930 Sinclair Lewis (U.S.).
1931 Erik A. Karlfeldt (Sweden).
1932 J. Galsworthy (England).
1933 Ivan G. Bunin (Russia).
1934 Luigi Pirandello (Italy).
1935 *No award.*
1936 Eugene O'Neil (U.S.).
1937 R. M. du Gard (France)
1938 Pearl S Buck (U.S.).
1939 Emil Sillanpaa (Finland).
1940-43 *No award.*
1944 J. V. Jensen (Denmark).
1945 Gabriela Mistral (Chile).
1946 Herman Hesse (Swiss).
1947 Andre Gide (France).
1948 T. S Eliot (Eng.).
1949 W. Faulkner (U.S.).
1950 Bertrand Russell (Eng.).
1951 Par Lagerkvist (Sweden).
1952 Francois Mauriac (Fr.).
1953 Winston Churchill (Eng.).
1954 E Hemingway (U.S.).
1955 Halldor K. Laxness (Iceland).
1956 Juen R Jimenez (Spain).
1957 Albert Camus (France).

Peace

1901 Henri Dunant (Switzerland) & F. Passy (Fr.).
1902 Elie Ducommun and A. Gobat (Belgium).
1903 W. R. Cremer (Eng.).
1904 The Institute of International Law (Belgium).
1905 Bertha von Suttner (Austria).
1906 T. Roosevelt (U.S.).
1907 E. T. Moneta (Italy) and Louis Renault (France).
1908 K. P. Arnoldson (Sweden) & Frederick Bajer (Den).
1909 Baron de Constant (Fr.) & A. Beernaert (Belgium).
1910 International Permanent Peace Bureau (Swiss.).
1911 T. M. C. Asser (Holland) & A. Fried (Austria).
1912 Elihu Root (U.S.).
1913 H. la Fontaine (Belgium).
1914-16 *No award.*
1917 International Red Cross, (Geneva).
1918 *No award.*
1919 Woodrow Wilson (U.S.).
1920 Leon Bourgeois (France).
1921 K H. Branting (Sweden) and Christian L. Lange (Norway).
1922 F. Nansen (Norway).

Peace—(*Concld.*)

1923-24 *No award.*
1925 Charles G. Dawes (U.S.) & Sir A. Chamberlain (Eng.).
1926 Aristide Briand (France) & G. Stresemann (Ger.).
1927 F. Buisson (France) and Ludwig Quidde (Germany).
1928 *No award.*
1929 F. B. Kellogg (U.S.)
1930 L. O. J. Soderblom (Sweden).
1931 Jane Addams & Nicholas M. Butler (U.S.).
1932 *No award.*
1933 Norman Angell (Eng.).
1934 A. Henderson (Eng.).
1935 Carl von Ossietosky (Ger.).
1936 C. de S Lamas (Argentine).
1937 Viscount Cecil (Eng.).
1938 Nansen International Office for Refugees (Geneva).
1939-43 *No award.*
1944 International Committee of Red Cross (Swiss).
1945 Cordell Hull (U.S.).
1946 Eamily G. Balch and John Mott (U.S.).
1947 American Friends Service Committee (U.S.) and Br. Society of Friends Service Council (Eng.).
1948 *No award.*
1949 Lord Boyd-Orr (Scotland).
1950 Ralph J. Bunche (U.S.).
1951 Leon Johuaux (France).
1952 Albert Schweitzer (Africa).
1953 George C. Marshall (U.S.).
1954 U. N. High Commissioner for Refugees.
1955 *No Award.*
1956 *No award.*
1957 Lester Pearson (Canada).

KALINGA PRIZE

[*The Kalinga Prize for the popularization of Science is offered annually by a rich man of Orissa through UNESCO. This prize of £ 1000 sterling is offered to the leading writer of science and for strengthening links between India and scientists of all nations*]

1952 Louis de Broglie (France).
1953 Dr. Julian Huxley (Britain).
1954 W. Kaempffert (U.S.).
1955 Dr. August Pi Suner (Venezuela).
1956 Prof. G. Gamow (U.S.).
1957 Bertrand Russel (England).

INDIAN STONES AGAINST PLANETARY ACTIONS

Sun (*Ravi*)	Ruby
Mars (*Mangal*)	Coral
Moon (*Chandra*)	Pearl
Mercury (*Budh*)	Emerald
Jupiter (*Brihaspati*)	Pokraj
Venus (*Sukra*)	Diamond
Saturn (*Shani*)	Sapphire
Ascending Node (*Rahoo*)	Gomed
Descending Node (*Ketoo*)	Cat's eye

BIRTH STONES

January—*Garnet*—Constancy.
February—*Amethyst*—Sincerity.
March—*Aquamarine, Blue Stone*—Courage.
April—*Diamond*—Innocence.
May—*Emerald*—Love, Success.
June—*Pearl, Alexandrite Moonstone*—Health.
July—*Ruby*—Contentment.

August—*Peridot, Sardonyx*—married happiness.
September—*Sapphire*—clear thinking.
October—*Opal, Tourmaline*—Hope.
November—Tapaz—*Fidelity.*
December—*Turquoise, Zircon*—Prosperity.

ANIMAL AND BIRD RECORDS

Tallest Animal—Giraffe.
Largest land animal—Elephant.
Fastest Bird—Swift, sometimes flies 200 miles per hour.
Largest quadruped of the dog family—Wolf.
Largest animal of the cat family—Lion.
Largest of man-like or anthropoid apes—Gorilla.
Largest of the sea birds—Albatross.
Fastest animal—Cheetah.
Largest sea animal—Blue Whale.
Smallest Bird—Humming bird.
Longest lived creature—Blue Whale (500 years)
Largest of the flat fish—Helibut.
Longest neck—Giraffe.
Largest living bird—Ostrich.
Heaviest bird—Condor.

PERIOD OF GESTATION OF VARIOUS ANIMALS

Bear	7 months	Lion	15 weeks
Beaver	4 months	Man	9 months
Camel	13 months	Opossum	26 days
Cat	65 to 63 days	Pig	4 months
Cow	62 to 63 days	Puma	15 weeks
Elephant	20 to 22 months	Rabbit	30 to 32 days
Fox	62 to 63 days	Rat	20 days
Giraffe	14 months	Sheep	5 months
Goat	5 months	Squirrel	30 days
Guinea pig	62 days	Tapir	10 to 11 months
Horse	11 months	Wolf	62 to 63 days
Kangaroo	39 days		

SPEEDS

In Air	*m.p.h.*	*In water*	*m.p.h.*		*m.p.h*
Woodcock	13	Swimmer	4·01	Runner	21.7
Vulture	89	Perch	1·3	Turtle	.01
Robin	36	Pike	10	Coral Snake	0.72
Swallow	110	Carp	0·9	Race horse	42·3
Homing pegion	62	Flying fish	35	Rabbit	45
Duck Hawk	180	Sail boat	30	Gazelle	60
Golden Eagle	120	Passenger liner	35	White-tailed	
Fighter plane		Light Cruiser	50	deer	49
(about)	700	Torpedo boat	60	Greyhound	36
Arrow	200	Outboard motor		Speed-test auto-	
Dive bomber	725	boat	74·39	mobile	394+
Transport plane	195	Racing speed		Cheeta	70
Bullet 2,000 ft.	per			Steamlined	
second.		*On land*	*m.p.h.*	train	135+
		boat	141·74	Skater	25·3

HEIGHTS AND DEPTHS

Main achievements in the sky

Highest flight by balloon carrying instruments	140,000 ft.
Highest rocket flight	over 200 miles
Highest flight in plane	83,235 ft.
Highest flight by passenger-carrying balloon	102,000 ft.

On and under the land

Highest point on land (Mt. Everest)	29,028 ft.
Tallest structure (Empire State Building)	1,472 ft.
Deepest oil well (Kern County, California)	21,480 ft.
Deepest mine (gold mine, Johannesburgh)	9,180 ft.

Under the Sea

Deepest point reached by submarine	800 ft.
Deepest point by man in rubber suit	450 ft.
Deepest point by man in metal suit	500 ft.
Deepest ocean bed in the Pacific Ocean	35,640 ft.
Greatest depth man has reached in the ocean by bathycaphe	13,287 ft.

LARGEST SHIPS

	Gross tons	*Overhall length (ft.)*	*Speed (knots)*
Queen Elizabeth (Br.)	83,673	1031.0	28½
Queen Mary (Br.)	81,237	1019.5	28½
United States (U.S.A.)	53,329	..	29
Liberte (Fr.)	51,839	936.8	23½
Ile de France (Fr.)	44,356	792.9	22½
Nieuw Amsterdam (Neth.)	36,667	758.5	21½
Mauretania (Br.)	35,674	771.8	21½
Caronia (Br.)	34,183	715.0	22
Pasteur (Fr.)	30,447	696.0	..
Arcadia (Br.)	29,734	721.0	..
Cosmic (Lib.)	29,500	744.0	..
Cristoforo Colombo (It.)	29,191	700.0	..
Ibaria (Br.)	29,614	718.0	..

LARGEST TANKERS

George F. Getty (Lib.)	52,200	785	..
Sinclair Petrolore (Lib.)	56,089	789	..
Tidewater (Lib.)	52,000	774	..
Universe Challenger (Lib.)	83,900	..	..
Universe Commander (Lib.)	83,900	..	..
Universe Leader (Lib.)	83,900	854	..

ATLANTIC BLUE RIBAND

1952	*United States*	(U.S.A.)	51,500 tons	3 days 12 hrs. 12m.
1952	*United States*	(U.S.A.)	51,500 tons	3 days 10 hrs. 40m.

Atlantic Blue Riband—(*Concld.*)

1938	*Queen Mary* (British)	81,237 tons	**3 days 20 hrs. 42m.**
1938	*Queen Mary* (British)	81,237 tons	**3 days 21 hrs. 45m.**
1937	*Normandie* (France)	80,000 tons	**3 days 23 hrs. 2m.**
1936	*Queen Mary* (British)	81,237 tons	**3 days 23 hrs. 57m.**
1936	*Queen Mary* (British)	81,237 tons	**4 days 0 hrs. 27m.**
1935	*Normandie* (France)	80,000 tons	**4 days 3 hrs. 2m.**

RECORD FLIGHTS AND JUMPS

Longest flight of homing pigeon	7,200 miles	Jump of a grasshopper	16 ft. 8 in.
Firing range of average heavy Gun	over 20 miles	Record distance of ski jumper	350.95 ft.
White-faced gibbon's leap	40 ft.	Longest recorded kick of a football	88 yds.
		Record baseball throw	443 ft. 5½ in

DECORATIONS & MEDALS

Victoria Cross (Great Britain)
Iron Cross (Germany)
Legion of Honour (France)
Croix de Guerre (France)
Victory Medal (U.S.A.)
Military Cross (Belgium)
Medal for Valour (Italy)
Order of the Patriotic War (Soviet Union)
Order of the Rising Sun (Japan)
Param Vir Chakra (India)

NATIONAL AND STATE FLOWERS

China	.. **Narcissus.**	Spain	.. **Pomegranate.**
England	.. **Rose.**	U. S. A.	.. **Golden rod.**
France	.. **Fleur-de-lis.**	Persia	.. **Rose.**
Germany	.. **Cornflower.**	Wales	.. **Leek or Daffodils.**
Greece	.. **Laurel.**	Prussia	.. **Linden.**
India	.. **Lotus.**	Canada	.. **Maple leaf.**
Ireland	.. **Shamrock.**	Egypt	.. **Lotus.**
Italy	.. **Lily.**	Holland	.. **Tulip.**
Mexico	.. **Cactus.**	Australia	.. **Golden Wattle.**
Switzerland	.. **Chrysanthemum**	Denmark	.. **Forget-me-not.**
Japan	.. **Edelweiss.**	Spain	.. **Red carnation.**
Scotland	.. **Thistle.**		

WORLD GAZETTEER

(A BRIEF GUIDE TO THE COUNTRIES OF THE WORLD)

ABYSSINIA—An independent empire in East Africa, official name *Ethiopia.* The Emperor directly controls the government, though there now are a Council of Ministers, a Senate and a Chamber of Deputies. All members are appointed by the monarch. The actual form of government is thus the personal rule of the Emperor. *Eritrea,* a country of E. Africa, a former Italian Colony was federated with Ethiopia in 1952. Area : 395,000 sq. m. Population : about 18,000,000. Capital—*Adis Ababa.*

AFGHANISTAN—A mountainous Moslem kingdom lying between Pakistan, Iran and Soviet Union. Afganistan runs all the way from Iran eastward to China and forms a long barrier between Soviet Union and Pakistan. The Government is constitutional monarchy. The supreme legislative power is vested in the Parliament consisting of the King, a Senate (50 nominated members) and a National Assembly (171 elected members). There is also· a Grand Assembly summoned on important occasions. The laws of Afghanistan are based on the "Shariat" or Islamic law and tribal custom. The main routes to Pakistan pass through the mountains, the chief being Khyber from Kabul and Bolan from Kandahar. The country is mountainous and under-developed. It can be reached only by a few high passes. There are no railways and navigable rivers. Afganistan's rough mountains have prevented the building of railroads. This has discouraged trade and travel in the country. The country is divided into seven major provinces. Each province is under a governor. Languages spoken—*Pushtu & Persian.* Area : 270,000 square miles. Population—13,000,000. Capital—*Kabul.*

ALBANIA—A mountainous Baltic republic in southern Europe bounded by Yugoslavia, Greece and Adriatic Sea, was incorporated with Italy in 1939 but now a free republic. Under 1945 constitution, Albania has a typical Soviet Government. Supreme power is vested in the popularly elected national assembly, to which the Cabinet, headed by the premier, is responsible. Area : 10,700 sq. m. Population—1,250,000. Capital—*Tirana.*

ANDORRA—A small semi-independent republic on the Franco-Spanish border in the E. Pyrenees under the joint suzerainty of France and Spain. It has enjoyed undisturbed sovereignty since 1278. Area : 175 sq. m. Pop.—5,200. Capital—*Andorra.*

ARAB STATES—A peninsula in south-west Asia inhabited by Arabs, was a single political until ; now comprises the following States —Aden Colony (British), Aden Protectorate, Bahrein Islands (Sultanate, Kuwait (Sheikdom), Oman and Masqat (Sultanate), Quatar (Sheikdom), Saudi Arabia, (Kingdom), Trucial Coast (Sheikdoms), Yemen (Kingdom).

Saudi-Arabia—is the most important State of the peninsula, occupying nearly four-fifths of the Arabian Peninsula. It consists of Nejd, Hejaz and its dependencies. The form of Government is a hereditary monorchy. An Advisory Council assists the king, while legislation is entrusted to the Consultative Assembly. The country contains the holy places of Islam—*Medina* where lies the tomb of Mohamed and *Mecca*, the birth place of the Prophet, which contains a great mosque. Area: 870,000 sq. m. Population—6,500,000. Capitals—*Riyadh* and *Mecca*.

Sheikdom of Kuwait—is an independent Arab Sheikdom. It extends along the shore of the Persian Gulf from Iraq to Saudi Arabia with an area of 5.800 sq. m. The principality has one of the world's richest oil reserves. Capital—*Kuwait*.

Sultanate of Oman and Masqat—occupies the mountainous eastern corner of Arabia. The State is best known for its date cultivation. Capital—*Mascut*.

Qatar—occupies the whole of the Qatar peninsula in the Persian Gulf. It is ruled under British protection by a Sheik. Capital—*Doha*.

Sheikdoms of Trucial Coast—extend along part of the Gulf of Oman and southern coast of Persian Gulf. It is ruled by seven semi-independent Sheikhs.

Kingdom of Yemen—is an independent state, occupying the south-western extremity of Aratra. Capital—*Taiz*.

Aden—is a British colony and protectorate situated on the volcanic southern tip of the Arabian peninsula along the Gulf of Aden. The 20-odd sultans who rule their respective territories in the protectorate are responsible to the British Governor of Aden.

Baherein Islands—These islands form an archipelago in the Persian Gulf and are independent under the protectorate of Great Britain. The islands are important for their oil, pearl, fisheries and strategic position. Area: 213 sq. m. Capital—*Manamah*.

ARGENTINA—Second largest South American Republic. It is a Federal Union of nineteen provinces and one federal district. The constitution is modelled on that of U.S.A. but each province enjoys a large measure of autonomy. The executive is in the hands of the President, who selects his Cabinet. The National Congress consists of a Senate of 30 members and of a Chamber of Deputies of 158 members. Argentina is regarded as the most important nation in Latin America, besides Brazil. Economically it is the most developed of all; it has 43 p.c. of the foreign trade of South America, 54 p.c. of all South American railwards and 55 p.c. of all automobiles. Argentina is a world leader in wheat, corn, flaxseed; alfalfa grown for feed to support huge heads of cattle is main crop; it also leads in beef, mutton, hides and wool. The language is Spanish. Area: 1,079,965 sq. m. Pop.—18,379,000. Capital—*Buenos Aires*.

AUSTRALIA—is a self-governing member of the British Commonwealth of Nations and is a federal union of eight states—Tasmania, Western Australia, Queensland, Northern Territory, South Australia, New South Wales, Victoria and Australian Capital Territory. The government is that of a Federal Commonwealth within the British Commonwealth of Nations, the executive power being vested in the Sovereign (through the Governor-General), assisted by a Federal Ministry. Australia is primarily an agricultural country, one of the world's greatest producers of wheat and wool, but industrialisation has been extensive. There is much unique flora, e.g., giant eucalyptus, and fauna, e.g., kangaroo, wallaby and wombat, platypus, sping anteater, koala bear and many unusual birds. Wool is Australia's greatest primary industry which produces 27 p.c. of the world's wool and 57 per cent of its marino wool. Australia is also one of the largest producers of wheat. Area : 3,000,000 sq. m. Pop.—8,986,842. Capital—*Canberra.*

AUSTRIA—is a country of Central Europe between Italy and German Federal Republic. The country became a free independent nation on the 15th May, 1955 for the first time since German troops entered into the country in March 1938. Austrian State Treaty signed on May 15, 1955 liberated Austria from seventeen years of foreign occupation, first by the Nazis and then by the Allies. The Treaty re-established Austria as "a sovereign independent and democratic state with frontiers of Jan. 1, 1938 (before Hitler seized the country)." Austria agreed never to form an economic or political union with Germany. It is a federal republic comprised of nine provinces (including Vienna), each of which has its own elected assembly for the control of regional affairs. The National Assembly is elected every four years and has 165 deputies. The head of the state is called the President and the government is led by a Chancellor. Area : 32,388 sq. m. Pop.—6,908,500. Capital—*Vienna.*

BELGIUM—North-west European Kingdom. Government is consitutional hereditary monarchy with a bicameral legislature consisting of the King, the Senate, and the House of Deputies. Belgium is the most densely populated country in Europe. Belgium is also a great colonial power ; she possesses Belgian Congo in Central Africa which is one of the world's largest copper producers ; the greatest producer of radium and also producer of gold and diamond. The Belgian Colonial Empire consists of *Belgian Congo* (Africa) and *Ruanda-Urundi* (U.N. Trust territory). Total area : 11,750 sq. m. Pop.—8,896,000. Capital—*Brussels.*

BHUTAN—Bhutan is a small semi-independent State lying on the south-east slope of the Himalayas, bordered on the north by Tibet and on the east, south and west by the Indian Union. The inhabitants are Mongolians and follow Buddhism. Agriculture is the chief industry. The country is governed by the hereditary king. A treaty signed with India in August, 1949 increased India's subsidy to Bhutan and placed Bhutan's foreign affairs under Indian control. Area : 18,000 sq. m. Pop.—700,000. Capital—*Punakha.*

BOLIVIA—South American Republic located in the west central portion of the South America. It is the world's greatest producer of tin after Malaya and has also large antimony and silver deposits. Bolivia is a Republic, electing by popular vote a President every four years, 927-member Senate every six years and a 111-member

Chamber of Deputies every four years. The President appoints the members of his cabinet. Area : 416,040 sq. m. Pop.—3,054,000. Capital—*La Paz.*

BRAZIL—By far the largest and the most populous country in South America and occupies nearly half of it. Brazil is a federation of twenty States, five territories and one federal district. The President is popularly elected for a five-year term. The National Congress is composed of two houses—the Senate and Chamber of Deputies. Brazil leads the world in the production of coffee and castor beans and ranks second in cacoa. The coffee crop represents three-quarters of the world's supply. The language is Portuguese with many dialects. Area : 3,287,842 sq. m. Pop.—61,000,000 Capital—*Rio de Janerio.*

BULGARIA—Balkan Republic. The constitution of 1947 modelled after that of Soviet Union provides that the unicameral National Assembly is the supreme organ of the State. The legislation has enacted complete state ownership or control of industry, banking, foreign and internal trade and collectivization of agriculture. The Assembly elects a 15 member presidium, the President of which is the nominal chief of state ; governmental administration is carried on by the Premier and his cabinet who are responsible to the Assembly. Area : 42,848 sq. m. Population—7,629,254. Capital—*Sofia.*

BURMA—Burma's independence from Great Britain became effective on Jan 4, 1948. A Constituent Assembly was elected on April 9, 1947 ; and the Constitution adopted on Sept. 24, 1947. The orientation of the government is toward moderate socialism which places emphasis on joint government-private enterprise, exploitation of natural resources, government ownership of transport and utilities, the extension of co-operative enterprises and land nationalisation. The Constitution provides for a government headed by the President, who is elected by the two houses of Parliament, meeting in a joint session. The Union Parliament elected for four-year terms, consists of the Chamber of Deputies and a Chamber of Nationalities. With the Burma proper it has four frontier areas —Shan, Kachin, Karen and Karenni States and the Chin Special Division. Due to continued political unrest Karen State was formally inugurated in June 1954. The principal productions are teakwood, rice, cotton, maize, tobacco, tin, silver and petroleum. The rubies, sapphires and jade found in Burma, are unsurpassed in quality. The Area : 261, 789 sq. miles. Population—19,242,000 (1954). Capital—*Rangoon.*

CAMBODIA—It is a constitutional monarchy in southern Asia, which with Vietnam and Laos comprised the former associated states of French Indo-China. It formally declared its independence from French in September 25, 1955. From 1949 to 1954 Cambodia was an Associate State of the French Union. It gained its independence in 1955. Area : 88,780 sq. m. Population—5,500,000. Capital—*Pnom Penh.*

CANADA—is an independent and Sovereign member of the British Commonwealth of Nations with the second continuous land area in the world, stretching across the northern part of the north American continent. It is a federal union of 10 provinces whose powers are laid down in British North America Act of 1867. The executive powers rest nominally in the hands of the Governor-General who represents the English Queen. Actually Governor-General acts only with the advice of the Prime Minister and members of the Cabinet. The Parliament has two houses—a Senate and a House of Commons. Canada exports newsprint, wood-pulp, wood, fish and fishery products, aluminium, copper, nickel and gram. Canada leads the world in production of asbestos, nickel and platinum ; ranks second in aluminium, gold and zinc and fourth in copper and lead. Of special interest is the uranium ore mined in the northern Canada, one of the only two places so far known in the world where raw material for atomic energy can be mined easily. Canadian fishing are among the most extensive and prolific in the world. It has two official languages, English and French. Area : 3,845,744 sq. miles. Population—15,482,000 (1955). Capital—*Ottawa.*

CENTRAL AFRICAN FEDERATION—was established by an Act of the British Parliament in 1953. It affects Northern and Southern Rhodesia and Nyasaland. Northern Rhodesia and Southern Rhodesia have a Governor, an executive council and a legislature. Nayasaland is a protectorate. Under the Constitution of 1953, federation has a virtual self-governing status and each of the three territories will retain status in local matters.

CEYLON—The island of Ceylon lies in the Indian Ocean, 13 miles off the southern tip of India at its closest point. It is now an independent republic within the Commonwealth. The constitution provides for a parliament composed of a Senate and a House of Reprsentatives. The administration is in the hands of the Cabinet of Ministers headed by the Prime Minister and responsible to the legislature. Buddhism is the religion of the majority. There are more than 1,610,000 Hindus. Area : 25,332 sq. m. Population—8,384,000. Capital—*Colombo.*

CHILE—A democratic State lies on the west coast of South America. In Chile, the only natural nitrate in the world is found. So sixty per cent of the world's iodine is obtained as a by-product of nitrate processing. World's second largest copper producer is Chile. Official language is Spanish. There is a National Congress consisting of a Senate of 45 members elected for eight years and a Chamber of Deputies with 147 members, elected for four years. The President is elected for six years by direct popular vote. Area : 290,000 sq. m. Population—6,941,000. Capital—*Santiago.*

CHINA—China is now divided into two parts with the *Republic of China* limited to Taiwan (Formosa) and the mainland under the Communist regime known as *People's Republic of China.*

The *Nationalist China* is now confined to Formosa since 1950. It is an island of 110 miles of the mainland of China. Under the constitution of 1947, the highest state organ is the National Assembly. It is the sovereign organ of the people. The Assembly elects President and Vice-President for a term of 6 years. The organs of the government include Executive yuan (cabinet) whose members headed by the Premier are appointed by the President with the concurrance of the Legislative yuan ; and the Legislative yuan, when the Assembly is not in session, has ultimate control over the cabinet.

The People's Republic of China which controls the entire mainland was proclaimed in Peiping (Peking) on September 1949 after the defeat of the Nationalist armies under Chiang Kai-shek. The communist set up a soviet-type government. The People's Republic and the Soviet Union signed a 30-year treaty of friendship and mutual aid on February 14, 1950. The Constitution of the People's Republic adopted by the National People's Congress on Sept. 1954 established the Congress as the highest organ of State power. Executive power is vested in the Chairman or President elected for 4-year term by the Congress. He appoints the Premier and his cabinet. The Cabinet is the highest administrative organ Effective control is exercised by the Central Committee of the Chinese Communist Party. Capital—*Peking*.

COLOMBIA—South American Republic lies in the extreme north-west of South America, having a coast line on both the Atlantic and Pacific. Area : 447,536 sq. m. Pop.—12,657,070. Capital—*Bagota.*

COSTA RICA—is an independent republic in the southern part of Central America between Necaragua and Panama. The Government of Costa Rica is republican, democratic and representative. Government functions are exercised through four semi-independent but interrelated branches : the Executive. the Legislative (Single Chamber), Judiciary and the Electoral Organisation. Area : 23,420 sq. m. Pop.—1,000,000. Capital—*San Jose*

CUBA—An independent Central American State, is the largest island in the West Indies. It is the largest cane-sugar producer in the world. Tobacco ranks second in importance. The constitution is modelled on that of the U.S.A. and provides for a President, a Vice-President, a Senate and a House of Representatives. Area . 46,736 sq. m. Pop.—5,832,277. Capital—*Havana.*

CZECHOSLOVAKIA—A central European republic formed in 1918 as one of the succession states of the Austro-Hungarian Empire ; it then comprised Bohemia, Moravia with Austrian Silesia, Slovakia and Ruthenia. Ruthenia was, however, ceded to Russia in 1945. In 1948, after the establishment of the People's Republic, the old provinces were abolished and the country was divided into 19 regions. It has a Soviet-type constitution, promulgated on June 8, 1948. There is a unicameral Parliament, the supreme organ of the State with control over Courts and Civil Service. The government is headed by the President, elected by Parliament for a seven-year term and the Prime Minister and his cabinet, who are appointed by the President but are responsible to the Parliament. The constitution contains guarantees of civil liberties and provides that the state shall conduct all economic activity in the public interest on the basis of single economic plan. Czechoslovakia possesses one of the richest territories in Europe, both in the matter of natural resources and industrial development. Area : 49,380 sq. m. Pop.— 13,272000. Capital.—*Prague* (*Praha*).

DENMARK—Denmark is a constitutional monarchy—the oldest kingdom of Europe. The Danish Parliament (*the Folketing*) has 179 members. Since 1915, women enjoy political rights equally with men.

Agriculture is all-out importance to the Danish economy. Farm products (butter, bacon, cheese, eggs) are Denmark's most important export articles. Industry and handicrafts employ more workers than agriculture and Denmark has developed a substantial export of machinery of many kinds, manufactured consumers goods, etc. Denmark's foreign trade is the largest in the world per head of population. Denmark's social services are highly developed. Greenland, world's largest island, is a part of Denmark. Size : 840,000 sq. miles; population 24,000. Area of Denmark : 17,115 sq. miles ; Population : 4,281,275 (1950), Capital—*Copenhagen.*

DOMINICIAN REPUBLIC—An independent Central American State, sharing th Caribbean island of Hispaniola with Haiti. It lies east of Cuba between the Atlantic Ocean and the Caribbean Sea. It is governed by President and a Congress consisting of a Senate and a Chamber of Deputies. Area 19,322 sq. m. Pop.—2,608,600 Capital—*Cuidad Trujillo.*

EGYPT—An independent republic of N.-E. Africa since 1953. It is the largest and the most influential of Arab States. Egypt was a semi-independent state with a hereditary Khedive under Turkish sovereignty from 1841-1916. From 1882 it was occupied by British troops and was under British administration. In 1914 a British protectorate was declared. The Anglo-Egyptian Treaty of 1936 recognised Egyptan sovereignty but gave to the United Kingdom the right to maintain a garrison on the Suez Canal, to use Alexandria and Port Said as naval bases and to move troops across Egypt in case of war or threat of war ; Sudan was to remain an Anglo-Egyptan Condominium under joint administration. There was growing discontent in Egypt over the presence of foreign troops and also with the economic structure of the country with the result that King Farouk had to abdicate in 1952. The Egyptan treaty of 1936 with U. K. was terminated in 1954, it being agreed that all British forces were to leave the zone by June 1956. General M. Naguib was President and Prime Minister from 1950 to 1954 when he was accused of concentrating all powers in his own hands and was relieved of all his posts. Colonel Gamal Abdel Nasser became Prime Minister and President in 1956. Egypt has been the leader of the Arab League since its formation in 1954. In 1958 Egypt has joined with Syria to form *United Arab Republic.* Area : 386,198 sq. m. Pop.—23,410,000 Capital—*Cairo.*

EQUADOR—Republic in the Pacific coast of South America. Equador is the world's chief source of the supply of balsa, a light wood. It exports more bananas than any other country. Area : 116,270 sq. m. Population—3,777,000. Capital—*Quito.*

EL SALVADOR—is the smallest of the six Central American Re-

publics and the only one without an Atlantic Sea coast. Area : 8,259 sq. m. Population—2,268,000. Capital—*San Salvador.*

FINLAND—Republic in N.-W. Europe, declared an independent State in 1917 ; fringed by islands and dotted with lakes, the State was an autonomous Russian State, but proclaimed an independent state in July 29, 1917 and a republic in 1919. Under the constitution there is a single Chamber composed of 200 members, elected by universal suffrage. The legislative power is vested in the Chamber and the President. The highest executive power is held by the President who is elected for a period of six years. One of the chief occupations in Finland is lumbering : articles made from wood include matches, constructional timber, paper and cellulose. The President is chosen for a term of six years. Area : 130,165 sq. m. Pop.—4,288,000 Capital—*Helsinki.*

FRANCE—Republic of Western Europe bordering on Spain in the S.-W. Italy, Switzerland and Germany in the E., Belgium and Luxemburg in the N.-E., and facing the Mediterranean, Atlantic Ocean and English Channel on the S., W. and N. respectively. The Constitution of the Fourth Republic came into force in Dec 1946 and vested the Government in the National Assembly elected by the universal suffrage, and the Council of the Republic. Both Chambers are elected on a territorial basis : the National Assembly directly by universal suffrage, the Council of the Republic indirectly by the Councils of the communes and departments of Metropolitan France, Algeria and the overseas territories. The President of the Republic is chosen at a joint sitting of both houses He appoints the President of the Council of Ministers (Prime Minister).

French Union—This is an association of all French overseas possessions and metropolitan France, established under the Constitution of the Fourth Republic in 1946. It has a President who is the President of the Republic, a High Council which was to include a delegation of the French Government and representatives of the Associate States and an Assembly of the representatives of the entire Union. The function of the High Council is to advise and assist the French Government in the management of the Union. Its powers are almost negligible. Area : 212,659 sq. m. Population—43,787,000. Capital—*Paris.*

FORMOSA—A large island off the south-eastern coast of China. It was a part of Chinese Empire but occupied by Japan. In the second World War, United States and U. K. promised to restore this island to China. In 1945 China led by Chiang Kai-shek was allowed to occupy and administer the island. When in 1949 the Communist Party in China became the ruling power, Chiang was forced to flee to Formosa where he established the so-called Nationalist Government of China with the support of U.S. In spite of the repeated protest of the People's Republic of China, U. S. declared that any invasion of this island or of nearby islands would have to get past the U. S. Seventh Fleet. U. K. has given *de jure* recognition to the Chinese People's Republic but U. S. recognises only the Government of Chiang Kai-shek. The island is maintained by the unlimited military aid of U. S. A. Area : 13,890 sq. m. Population—7,591,298. Capital—*Taipei.*

GERMANY—After the fall of Germany in the World War II, for the purposes of control, Germany was divided in 1945 into four national occupation zones, each headed by a military governor assisted by appropriate supervisory and operating staff. Efforts to unify Germany were totally unsuccessful, and the western powers were unable to agree with U S.S R. on any fundamental issue. So on May 31, 1948 U. S , Britain, France and Benelux countries agreed to set up a German State comprising the three western zones.

The *Federal Republic of Germany* came into formal existence on September 1, 1949 when Allied High Commission transferred to it the administration of the U. S., British and French Zones of occupation of Germany. On May 23, 1949 the German Constituent Assembly at Bonn enacted the constitution for Western Germany.

By the constitution, Republic was given full legislature, executive and judicial powers, but not in respect of such matters as armaments, reparations, decartelization, foreign affairs, the admission of refugees and other matters. The London and Paris agreements were ratified by the three occupying powers on 5th May, 1955. Under the Agreements the Republic attained full sovereignty and independence, though American, British and French Forces were given permission to remain on German territory. Under the constitution, there is a Federal Diet elected by the universal suffrage for a term of four years and a Federal Council. Area : 95,724 sq. m. Population—53,500,000. Capital—*Bonn.*

German Democratic Republic comprises Soviet zone of occupation of Eastern Germany It was proclaimed on Oct. 7, 1949 with its seat at Berlin on the basis of a Constitution adopted on May 30, 1949 by a People's Congress. The Constitution is Soviet in nature. Under a treaty between the German Democratic Republic and the U.S S R. in 1955, the Republic became a Sovereign State and was given complete freedom to decide all questions concerning its internal and foreign policy. Area : 42,112 sq. m. Population—18,000,000. Capital—*Berlin.*

GHANA—On March 6, 1957, Ghana (former Gold Coast State) became an independent State within Brtish Commonwealth. It is composed of former British Gold Coast with its outlying territories of Ashanti and Northern Territories and British Togoland. It is situated in western Africa. Under a constitution Ghana has a Parliament, a Cabinet and a Governer-General representing the Crown. Area : 91,843 sq. miles. Population—4,691,000. Capital—*Accra*

GREAT BRITAIN & NORTHERN IRELAND—The United Kingdom of Great Britain and Northern Ireland comprising England, Wales, Scotland, Northern Ireland, Island of Man and the Channel Islands, lies on the north-west corner of Europe. Parliament is the legislative governing body for the United Kingdom with certain powers over the dependent Empire but none over the Dominions. It consists of two houses — the House of Lords and the House of Commons. United Kingdom is a constitutional monarchy with a queen and a Parliament. Supreme legislative power is vested in Parliament. The executive power of the Crown is exercised by the Cabinet headed by the Prime Minister. Great Britain is second only to U.S.A. among the industrial nations of the world. Most important manufacture is heavy goods, such as machinery, tools, bridges and locomotives. Area : 94,300 sq. m. Population—51,113,000. Capital—*London.*

GUATEMALA—Republic of Central America. Area : 42,042 sq. m. Pop.—3,349,000. Capital—*Guatemala.*

GREECE—is an independent South European State located at Balkan peninsula, stretching down into the Mediterranean Sea. Greece is a constitutional hereditary monarchy. Nominal executive power is vested in the King but the Government is administered by the Council of Ministers, headed by the Premier who must enjoy the Assembly's confidence. Area : 51,246 sq. m. Pop.—8,150,000. Capital—*Athens.*

HAITI—It occupies the western third of the island known as Hispaniola, the second largest of the Greater Antilles lying between Cuba on the west and Puerto Rico on the east. It is the only Negro Republic with western hemisphere. Area : 10,714 sq. m. Pop.—3,305,000 Capital—*Port-au-Prince.*

HONDURAS—Republic of Central America on Atlantic and Pacific Oceans. The chief commercial activity is the cultivation of bananas and coconuts on the Atlantic coast. Bananas constitute about sixty per cent of the total value of the exports. Area : 43,227 sq. m. Population—1,608,000. Capital—*Tegucigalpa.*

HUNGARY—European Republic formed out of Austro-Hungray ; it is the abode of the Magyars. The Soviet type of constitution was adopted by the Parliament on August 18, 1949 which declared Hungary to be a 'People's Republic'. The supreme organ of state control was declared to be the Parliament with Deputies elected for 4 years by direct vote. When Parliament is not in session, power is exercised by the Presidium headed by the Chairman. Executive power is vested in the Cabinet headed by the Premier. Hungary's bauxite deposits are considered one of the largest in the world. Area : 35,902 sq. m. Population—9,700,000. Capital—*Budapest.*

ICELAND—Island in the North-Atlantic Ocean, now Republic ; it is close to the Arctic circle in the North Atlantic ; constitutionally, the President is elected for four years by popular vote. Executive power of the State resides in the Prime Minister and his Cabinet. The Althing is composed of two houses. Iceland has no army or navy but under NATO and a 1951 agreement, U.S.A. maintains on the island army, navy and air forces. Area : 39,758 sq. m. Pop.—162,000. Capital—*Reykjavik.*

INDIA—It is now an independent Republic since 1950. The dominion is one of the largest and richest nations in the world. Area : 1,221,889 sq. m. Pop.—356,891,624. Capital—*New Delhi.*

IRELAND—is now a sovereign independent and democratic State from 1949 and the constitution affirms the right of the Irish

nation to choose its own form of government; to determine its relations with other nations and to develop its life in accordance with its own genius and traditions. The head of the State is the President elected by the direct vote for 7 years. The Parliament consists of the Dail Eireann elected by the universal suffrage and proportional representation and the Senate of 60 members. Area : 27,137 sq. m. Pop.—2,895,000. Capital—*Dublin.*

INDONESIA—is a republic of S. E. Asia comprising territory formerly known as the Dutch East Indies. Indonesia comprises four large islands of Java, Sumatra, most of Borneo and Celebes, fifteen minor islands including Madura, the Moluccas and Bali and thousands of small ones. Ninety per cent of the population are muslims. Indonesia is one of the richest countries in natural resources. There are vast supplies of tin, oil and coal, and sizable deposits of bauxite, manganese, copper, nickel, gold and silver. It is the principal producer of petrolium in the Far East and rivals Malaya in its output of rubber and tin. It also exports coffee, tea, sugar, copra and rice. Until March 1942, Indonesia was a Netherland overseas territory. Following Japanese Military occupation (1942-45), Indonesian Nationalists proclaimed a republic on Aug. 17, 1954. Four years intermittent warfare between Netherlands and Indonesian forces were terminated by agreements signed on Nov. 2, 1949 transferring sovereignty. Over all Indonesia, except Netherlands New Guinea, a new Interim Government known as Republic of the United States of Indonesia was established. On July 1950 member states agreed to form a strongly centralised Government and accordingly a unitarian state with an amended constitution was proclaimed and its name was changed to Republic of Indonesia. The Netherlands-Indonesia Union with Netherlands Queen at its head created in 1949 began to dissolve by Aug 10, 1945, when new protocols governing future relationship were signed. Legislative power is in the hands of a House of Representatives numbering about 212. Area : 735,865 sq. m. Population—81,000,000. Capital—*Jakarta.*

IRAN—Kingdom of Western Asia, also known as Persia. Iran is a constitutional monarchy. Executive power is exercised by a Cabinet headed by the Prime Minister who is appointed by the Shah and is responsible to the *Majlis* (Parliament) which has 136 popularly-elected members. The Shah has power to dissolve the Majlis. Iranian oil field in the south-west territory at the head of the Persian Gulf is the richest single field in existence. Area : 628,000 sq. m. Population—19,000,000. Capital—*Tehran.*

ISRAEL—The Jewish State in Palestine was established in 1948 in fulfilment of the aspirations of Zionism and following a decision of U.N. Assembly on the partition of Palestine between Jews and Arabs. Israel is a democratic State. It occupies the major portion of Palestine. It lies on the western edge of Asia bordering on the Mediterranean Sea. On Nov. 2, 1917, British Government made a declaration, known as *Balfour Declaration*, which viewed with favour the establishment in Palestine of a home for the Jewish people. This principle was incorporated in the mandate to Britain which

came into force in 1923. The British mandate on Palestine ended at mid-night on May 14, 1948 when the Jewish National Council proclaimed a Jewish State of Israel. This led to the war against Israel by Arab States. But armistice agreement was signed under U.N. auspices which left Israel as an independent State. The declaration of independence of the Jewish National Council on May 14, 1948 stated that the new nation would be "based on the precepts of liberty, justice and peace taught by the Hebrew prophets." Israel is a parliamentary democracy. Supreme authority is vested in one Chamber Parliament called the 'Knesset' (Assembly) with 120 members. The cabinet is responsible to the Knesset and holds office as long as it enjoys the confidence of the Knesset. Area : 8,048 sq. m. Population—1,872,000 Capital—*Jerusalem.*

IRAQ—Arab Kingdom in the Middle East ; formerly known as Mesopotamia ; now one of the states lying between Arabia and Iran, created as a result of World War I when under the treaty of Lousanne (1923), Turkey renounced the sovereignty over Mesopotamia. A revolution took place in July 1958 when the monarchy was overthrown and Iraq was declared a republic. Iraq consists of rolling parched plains with Tigris and Euphrates cutting green swaths through the colourless terrain. Iraq is one of the great oil-producing countries of the world. Oil revenues represent more than one-third of the national income. Other products are wheat, barley, beans, rice and eighty per cent of world's dates. Area : 172,000 sq. m. Population—6,600,000. Capital—*Bagdad.*

ITALY—Republic of Europe stretching from the Alps southeast into the Mediterranean with the islands of Sicily, Sardania, Elba and 70 smaller ones : under Italy's new Constitution of 1948 the State is described as a "democratic republic founded on work." The President is elected for seven years by Parliament in joint session with regional delegates. The Cabinet headed by the Premier and nominated by the President, must enjoy the confidence of Parliament which is composed of the Chamber of Deputies popularly elected for a five-year term and the Senate. Italy is ordinarily the world's largest producer of mercury ; it is also an important producer of sulphur. Area : 117,471 sq. m. Population—48,223,000.Capital —*Rome.*

JAPAN—Island empire of Asia, is situated in the North Pacific Ocean off the coast of China and Siberia. It consists of four main islands : Houshu (mainland), Hokaido, Kyushu and Shikoku. It was under the control of Allied powers upto 1951. The new constitution effective on May 3, 1957, made drastic changes in Japan's political system. The Emperor retains only ceremonial functions and the executive power is vested in the cabinet, headed by the premier and collectively responsible to the Diet. Law-making power is solely vested in the Diet, composed of two houses—House of Representatives popularly elected and House of Councillors. A bill of rights guarantees certain basic liberties.

On Sept. 8, 1951, 48 nations signed a treaty of peace with Japan restoring Japan's sovereign equal status in the community of nations.

On the same day U.S. and Japan signed a bi-lateral defence agreement. Area : 142,644 sq. m. Population—89,269,278. Capital—*Tokio*.

JORDAN (Hashemite Kingdom of)—was formerly known as Trans-Jordan, is an independent state of western Asia ; formerly an Arab State in the Palestine mandate. Conquered from the Turks by the British in World War I, Jordan was separated from the Palestine Mandate in 1920 and placed in 1921 under the rule of Abdulla ibn Hussain. In 1923 Britain recognised Jordon's independence, subject to the mandate. During World War II, Jordan co-operated completely with Britain. On March 22, 1946, Britain abolished the mandate and recognised the full and complete independence of Jordan. Under the new constitution of 1952, legislative power is vested in Parliament. Area : 37,700 sq. m. Population—1,500,000. Capital—*Amman, Jerusalem.*

KOREA—East Asiatic country on a peninsula between Manchuria and Japan. It was a vassal of China for 500 years and was annexed by Japan in 1910. During the World War II at the Cairo Conference in 1953, the Allied powers agreed that Korea should be free and independent. After the end of the World War II, at the Postsdam Conference in 1945, the 38th Parallel of latitude was designated as the line dividing the Soviet and the American occupation. All the efforts to unite these two parts of Korea failed. South Korea formed the *Republic of Korea* in May 1948 when U S A. handed over the Government to them. On May 1, 1958 the communists formed the *People's Democratic Republic of Korea* in North Korea with the capital at Pyongyang. On June 25, 1950 North Korean Army invaded South Korea. The U. N. Security Council demanded the immediate withdrawal of the North Korea Army. U.S A. entered the war in support of South Korea Army. The truce talks between the parties continued in 1952 and 1953 amid sporadic hostilities. An armistice was signed finally at Panmunjom on July 27, 1953. The armistice contemplated an international political conference on the status of Korea but negotiations for arranging it broke down. The question was discussed without result at the Geneva Conference on Far Eastern problems (April 26—June 19, 1954).

South Korea is a republic with legislative powers vested in a bicameral parliament and executive power in a popularly elected President and a cabinet headed by a premier. North Korea is a typical Soviet State under the constitution adopted on Sept. 2, 1948.

LAOS—An independent State, formerly belonged to the French Union It is situated in the north-west Indo-China The King is the head of the State and supreme religious authority. Legislature is the National Assembly. Area : 89,000 sq. m. Population—3,000,000. Capital—*Luang Prabang.*

LEBANON—The Republic of Lebanon is in the Levant. It occupies a strip of land along the Mediterranean coast, sandwiched between Israel in the south and Syria in the north and east This Arab State was formed from the five former Turkish Empire districts of North Lebanon, Mount Lebanon, South Lebanon, Beirut and

Bekaa. Along with Syria, it became an independent State in 1920. Both were administered under French Mandate till 1941. Lebanon is a free democratic country with a popularly elected Government. It is governed by a President elected by Parliament for a six-year term and a cabinet of ministers appointed by the President but responsible to Parliament, which has 44 members with a population of less than 1.5 million. Lebanon is the smallest Arab State. The population of the Arab State is half Christian and half Moslem. Area : 4,000 sq. m. Pop.—1,450,000. Capital—*Beirut.*

LIBERIA—Independent Negro Republic of West Africa on the Guinea Coast. Liberia was founded in 1820 by the American Colonization Society as a country for freed slaves from U.S.A. and became independent republic in 1847. The government is modelled after that of the United States. Area : 43,000 sq. m. Population—2,750,000. Capital—*Monrovia.*

LIECHTENSTEIN—is an independent Alpine principality between Austria and Switzerland. The constitution of 1921 provides for a legislature of 15 members elected by direct universal suffrage. Area : 62 sq. m. Pop.—14,757. Capital—*Vaduz.*

LIBYA—Kingdom of North Africa comprising Tripolitania, Cyrenaica and Fezzan with a Mediterranean coastline of nearly 1000 miles between Egypt and Tunisia and stretching appoximately the same distance south to the Sahara. In 1912 an Italo-Turkish war left Libya in Italian hands. After the Italian defeat of 1943, Tripoli and Cyrenaica remained under British and Fezzan under French military government. In comformity with a resolution of the General Assembly of U.N. on Nov. 21, 1949, Libya became on Dec. 24, 1951 the first independent state created by the United Nations. Libya has a federal form of government and a hereditary monarchy. Government is by a two-chamber Parliament. Area : 679,358 sq. m. Population—1,340,000. Joint capitals—*Tripoli and Bengazi.*

LUXEMBURG, GRAND DUCHY OF—Luxemburg is a European Grand Duchy situated between Germany, Belgium and France. It was given its present rank as principality by the Congress of Vienna in 1815. Area : 999 sq. m. Pop.—312,000. Capital—*Luxemburg.*

MALAYA, FEDERATION OF—The Federation of Malaya became a limited constitutional monarchy and dominion within British Commonwealth, which was effective on August 31, 1957. It is the only free nation in the Commonwealth other than Great Britain to have its own monarch. It is composed of sovereign Malaya States and the former British Straits Settlements colonies of Penang Island and Malacca occupying the Malaya Peninsula in South-East Asia. The States included in the Federation are—Perak, Selangor, Negri Sembilan, Pahang, Johore, Kedah, Perlis, Kelantan, Trengganu, Malacca and Penang. The Federation is largely a producer of raw materials, chief of which are tin, rubber, palm and cocoanut oil, copra. The world's richest source of tin centres in Perak, supplying about one-third of the world's total. The legislative authority is vested in a Parliament consisting of the Supreme Head of the State, a Senate and a House of Representatives. Area : 50,690 sq. miles. Population—6,252,000 Capital—*Kuala Lampur.*

MEXICO—A Federal democratic republic of 29 states, 2 territories and the federal district of Mexico city. President is elected for six years and is ineligible to succeed himself, governs with a cabinet of his appointed ministers. The Federal Congress has two houses—*Chamber of Deputies and Senate.* Mexico has a great mineral wealth and produces petroleum, silver, gold, copper, lead, quicksilver, iron and coal. She is the world leader for the production of silver, sisal, hemp and chicle for chewing gum. Area : 760,375 sq. m. Population—30,538,000. Capital—*Mexico City.*

MONACO—A tiny independent principality in the south of France ; is located on the Mediterranean with land frontiers, joining France at every point. It is noted for an exceptionally mild climate and magnificent scenery. It is the smallest State in the world. Area : 0.50 sq. m. Pop.—20,422. Capital—*Monaco.*

MONGOLIAN PEOPLE'S REPUBLIC—is also known as Outer Mongolia. In 1915 Mongolia threw off its allegiance to China and by a treaty was recognised as an autonomous republic. Negotiations with Russia after 1917 revolution led to an alliance and by treaty, U.S.S.R. acknowledged the sovereignty of China over Outer Mongolia, but by the Russian-Chinese treaty of August 25, 1945 China recognised the complete independence of Mongolia. The Government of the republic is strikingly similar to the Soviet system. The Parliament is elected by universal suffrage and from which is drawn a seven member Presidium. Area : 1,750,000 sq. m. Pop. about 4,000,000. Capital—*Ulan Bator.*

MOROCCO—one of the Barbary States, is situated in the northwest of African continent. The Empire theoretically was an absolute monarchy, but the country was divided into three zones—the *French*, the *Spanish* and the *International Tangier Zone.* The country in effect was partitioned and subjected to foreign rule from 1912 to 1956. As a result of a Protectorate Treaty with France in 1912 and a Convention between France and Spain in 1912, the country was divided into French and Spanish Spheres of influence, known respectively as French Morocco and Spanish Morocco. In 1923 the city of Tangier with a small enclave in Spanish Morocco was neutralized and demilitarised. After a lengthy period of unrest, French Government was forced in 1956 to recognise Morocco as an independent sovereign State and Spanish Government agreed in 1956 that Spanish Morocco was an integral part of the Morocco State and on May 1956 the Tangier International Control Committee agreed to the integration of Tangier with the rest of Morocco. Area :172,104 sq. m. Pop.—8,620,006. Capital—*Rabat.*

NEPAL—A land-locked country lying between India and Tibet. It occupies slopes of the Himalayas, bound in the north by Tibet, south and west by India and east by Sikkim and Bengal. Nepal has two great distinctions of containing Mt. Everest, 29,028 (ft.), the tallest mountain peak of the world and some of the toughest fighting men in the world—Gorkhas. After a revolution in 1950, a representative government has been established in 1950 with King as constitutional head. The traditional supreme authority of the Prime Minister no longer exists. Area : 54,000 sq. m. Pop.—8,431,547 Capital—*Katmandu.*

NETHERLANDS—Kingdom in North Western Europe. It is a constitutional and hereditary monarchy. Executive power is vested exclusively in the sovereign while the legislative power vests with the sovereign and Two-Chamber legislature. The sovereignty over former Netherlands Indies was transferred to the Republic of Indonesia excepting Netherlands New Guinea in 1949. Area : 12,850 sq. m. Population—10,956,251. Capital—*Amsterdam.*

NICARAGUA—is the largest central American Republic lying between the Caribbean Sea and the Pacific Ocean. Area : 57,145 sq m. Pop.—1,245,000. Capital—*Managua.*

NEW ZEALAND—A dominion of the British Commonwealth in the south-west Pacific Ocean. The dominion consists of North Island and South Island. Stewart Island. Chatham Islands and some small Pacific Islands. The executive authority is vested in the Governor-General who must act on the advice of an Executive Council appointed from a House of Representatives of 80 members. Area : 103,939 sq. mile. Population—2,153,356. Capital—*Wellington.*

NORWAY—Kingdom of north Europe. Norway is a constitutional and hereditary monarchy with succession in direct male line. It is a constitutional and hereditary monarchy. Legislative power is vested in the Storting (Parliament) with 150 members. They choose one quarter of their number to form the Lagting (upper house), the other three-quarters forming the Edelsting (lower chamber). Executive power is vested in the King acting through the Cabinet (Statsraad) comprising the Prime Minister and at least seven ministers. Norway is one of the greatest seafaring nations and its merchant marine is the third largest in the world. In the North Cape area is the phenomenon known as *midnight sun.* The sun does not set from the middle of May until the end of July, nor does it rise above the horizon approx. from Nov. 18 to Jan. 23. Varicoloured Northern Lights are visible in winter. Forests cover nearly one-fourth of the area They are the principal sources of wealth, and the paper and wood pulp industries flourish. Area :125,064 sq. m. Pop.—3,370,000. Capital—*Oslo.*

PAKISTAN—A new Muslim State was formed by the partition of India on August 14, 1947. It is the world's largest Muslim State. Under its new constitution, it is an "Islamic Republic" where the laws should be framed according to Quoranic principles. It is divided into two parts : Western part is made up of Baluchistan, Sind and N. W. F. Province and the western part of the Punjab, princely State of Bhawalpur and a few other small muslim states which have now been formed into one unit state, while Eastern part consists of the Eastern half of Bengal and the Sylhet district of Assam. Over half of the population is concentrated in East Bengal which contains only 16 p.c. of the total area. Area : 364,737 sq. m. Pop.—83,603,000 Capital—*Karachi.*

PANAMA, REPUBLIC OF—It occupies the entire Isthmus of that name connecting Central and South America and separating the Atlantic and the Pacific Oceans. It stretches 450 miles. Panama Canal is the country's big econimic asset. On Nov. 18, 1903 Panama granted the canal zone to the U.S. by treaty. Panama canal zone is governed by the canal zone government and operated by the Panama Canal Company, both set up on 1 July, 1951. The Secretary of the U.S. Army holds all the shares of the Company. Area : 28,570 sq. m. Pop.—934,000. Capital—*Panama.*

PARAGUAY—South American Republic situate between Argentina, Bolivia and Brazil. Since the adoption of the 1940 constitution, Paraguay is a semi-authoritarian republic. Area : 157,000 sq. m. Pop.—1,601,00. Capital—*Asuncion.*

PERU—Maritime Republic situated on the Pacific coast of South America. Under the Constitution, the President is elected for six years by direct popular vote. The Congress consists of a Senate and a Chamber of Deputies. Each House being elected for six years. Peru has vast mineral resources. It ranks fourth in world in silver production and mines about 25 p.c. of the world's vanadium. Area : 514,059 sq. m. Population—9,651,000. Capital—*Lima.*

PHILIPPINES—is the largest island group in the Malaya Archipelago. It is an archipelago of approximately 7,083 islands lying about 500 miles off the south-east coast of Asia. The largest islands are Luzon, Mindanao, Samar, Negros, and Palawan. The independence of the Philippines was proclaimed on July 4, 1946 in accordance with the Act passed in the American Congress in 1934. The Philippines have a republican form of Government based on that of the United States. Executive power is exercised by the President popularly elected for a 4-year term and assisted by a Cabinet appointed by him. The popularly elected Congress has two houses—the Senate with 24 members and the House of Representatives with not more than 120 members. The chief agricultural products are unhusked rices, manila hemp, sugar-cane, corn and tobacco. The principal export fruit in the pineapple. Area : 115,600 sq. m. Pop—22,265,300. Capital—*Quezon City.*

POLAND—is a communist Republic of Central Europe known as Polish People's Republic. Poland's new constitution describes Poland as a people's republic in which the highest authority is the Sejm, elected for 4-year terms by direct secret ballot. The Sejm elects a Council of State and a Council of Ministers. In most respects it follows the pattern set by the U.S.S.R. constitution of 1936. The office of the President has been abolished and the Council of State is the highest organ of the government. Area : 120,310 sq. m. Population—28,070,000. Capital—*Warsaw.*

PORTUGAL—is a Republic of S.-W. Europe occupying the western part of the Iberian Peninsula, bounded on the north and east by

Spain and on the south and west by the Atlantic Ocean. Under the constitution of 1933 revised in 1951, Portugal is a Unitary Corporative republic. The President is elected popularly for a term of seven years. It has a National Assembly of 120 members for a term of 4 years. There is also a Corporative Chamber which handles economic and social matters and advises National Assembly. Area: 34,466 sq. m. Pop.—8,837,000. Capital—*Lisbon.*

RHODESIA AND NYASALAND, FEDERATION OF—The Federation of Rhodesia and Nyasaland comprising the self-governing Colony of Southern Rhodesia and the Protectorates of Northern Rhodesia and Nyasaland came into being in 1953. The Federation is not a full member of the Commonwealth, since legislation in certain fields must be reserved for British Royal Assent which involves consideration by United Kingdom Ministers, and the United Kingdom government also retains ultimate responsibility for external affairs. There is a Federal Assembly of 59 members. The Queen of England is represented in the Federation by a Governer-General. Principal exports are copper, asbestos, gold, tobacco and tea. Area: 487,640 sq. m. Pop.—376,750,000. Capital—*Salisbary.*

RUMANIA—Independent Republic of the Balkans; according to new Constitution of 1948, Rumania is a "People's Unitary and Independent State". It is socialistic in nature. The highest authority of the Government is Grand National Assembly. Virtually all the powers formerly vested in the King are exercised by a 19-member presidium of the National Assembly; certain area has been ceded to Russia. Area: 92,000 sq, m. Pop.—17,490,000. Capital—*Bucharest.*

SAN MARINO—Independent republic bounded by Italian territory, lying some 12 miles S.-W. of Rimini. It claims to be the oldest state of Europe being founded in the 4th century and is one of the world's smallest states. San Marino, the capital, is situated on a spur of the Apennines. Government is by a council of 60 and the State is under Italian protection. Area: 38 sq. m. Population—14,000.

SOUTH AFRICA—The Union of South Africa is a Dominion within the British Commonwealth of nations. It extends from the southernmost point of the African continent to the course of Limpopo region. It consists of the following provinces—Transvaal, Cape of Good Hope, Orange Free State and Natal. The capital of the Union is Pretoria, though Union's Legislature meets in Cape Town. It is the richest gold and diamond producing country in the world and one of the richest in uranium. Area: 472,733 sq. m. Pop.—12,648,575. Capital—*Pretoria* (seat of administration) and *Cape Town* (seat of legislature).

SPAIN—Nominal monarchy of S.-W. Europe. It is separated from France by the Pyrennees mountain. It was proclaimed a republic on April 14, 1931. Spain has a dictatorship form of government under General Franco. Franco is the head of the State, national chief of the Falange party, Prime Minister and *Caudillo* (leader) of the empire. Practically, the country is ruled by the Cabinet (appointed by Franco), the National Council of the Falange Party and, to a lesser extent, the Cortes (Parliament). The principal function of the Cortes is the planning and formulation of laws without prejudice to Franco's veto power. On April 1947, Franco himself declared Spain a kingdom again. He was to remain head of the State, and upon his death or incapacity, the government and a Council of the Realm constituted by the law are to nominate as King "that person of royal blood who is most qualified by right", subject to the approval of the Cortes. Area : 195,504 sq. m. Pop.—29,203,000 Capital—*Madrid.*

SUDAN—It was formerly Anglo-Egyptian Condominium. It lies between the Sahara and the equatorial forests and extends from the Atlantic to Ethiopia. After the defeat of Sudan by the British forces in 1898, a Condominium was established in agreement with Egypt and reaffirmed in 1936 which provided for the appointment of a Governor-General by Egypt. In 1951 Egypt abrogated the 1936 treaty and Egyptian King began to style himself as the "King of Egypt and Sudan", which was not recognised by Great Britain and by the majority of Sudanese. A compromise agreement was signed on Feb. 1953 providing for the liquidation of the dual administration and the determination by the Sudanese on either Union with Egypt or complete independence. Authority during three-year transition was vested in the British Governor-General and a five-man commission. Sudan voted for complete independence on Dec. 19, 1955, effective on Jan. 1, 1956 and provided for a constituent assembly and new parliament. Area 967,500 sq. m. Pop.—10,000,000. Capital—*Khartum.*

SWEDEN—Kingdom of North Europe. Government is a constitutional hereditary monarchy. Executive and judicial authority are vested in the King alone but his resolutions must be taken in the presence of the Council of State (Cabinet) headed by the Prime Minister; the Council is appointed by the King, but is responsible collectively to the Riksdag (Parliament). The Riksdag has an upper chamber elected indirectly by the provincial and municipal councils for eight years. The lower chamber of 230 members is directly elected by popular vote for four years. Sweden is an important source of high grade iron ore and also exports lumber, pulp and paper and is known for its special technical industries (ball bearings and electrical appliances). Area : 173,378 sq. m. Pop.—7,341,122. Capital—*Stockholm.*

SWITZERLAND—is the federal republic of Central Europe and is a federation of 22 sovereign cantons. Each canton has its own legislature, executive and judiciary Department with the right to veto over federal legislation through referendum. The national authority vests in a Parliament of two Chambers—State Council to which each canton sends two members; the lower house—National Council, has 196 members, one representative to each 24,000 population. The executive power is vested in the Federal Council of seven members. President serves for one year. On the basis of international treaties and guarantees, Switzerland is perpetually neutral. Switzerland enters into no military alliance and is not a member of the U. N. or NATO. It is, however, a member of various international commissions of the U.N., W.H.O., etc. German, French and Italian are official languages of Switzerland. Dairying and stock-raising are the principal industries. Area : 15,950 sq. m. Pop.—5,023,000. Capital—*Barne.*

SYRIA—The republic is in the Levent covering portion of the former Ottoman Empire. It is an arid and uncultivated country situated in a fertile oasis. It had been under French mandate since 1914-18 war, became an independent republic during 1939-45 war. The constitution which is based to some extent on that of the U.S. was passed in 1950. It has now joined with Egypt in 1958 to form a political union between the two countries to be known as *United Arab Republic.* Area : 72,234 sq. m. Pop.—3,806,973. Capital—*Damascus.*

THAILAND—Constitutional Monarchy of South-eastern Asia bordered by Laos and Cambodia in the east, by Malaya in the south and separated from Burma by the river Salween. It is a constitutional hereditary monarchy. The Constitution provides that the King shall exercise legislative power by and with the advice and consent of the Assembly of the People's Representatives, executive power through a Council of Ministers and judicial power through Courts established by law. Area : 200,148 sq. m. Pop.—20,686,000. Capital —*Bangkok.*

TRIESTE—Seaport of the north Adriatic on a like-named gulf. It was a territory under Italy from 1920. After the 2nd World War, it was a debateable territory between Italy and Yugoslavia. In 1947 the Free Territory of Trieste was constituted as a compromise between Italian and Yugoslav claims, under the aegis of the United Nations Security Council ; as a temporary expedient, the territory was divided into two parts, namely, the Italian Zone (A) in the north (including Trieste City) guarded by U K. and U.S.A. forces and the larger but less populous Yugoslav Zone (B) in the South. Area. 285 sq. m.

TUNESIA—is a former French protectorate and was proclaimed a republic in 1957. It is situated on the northern coast of Africa. Area : 48,301 sq. m. Pop.—3,783,000. Capital—*Tunis.*

TURKEY—Republic of Asia and Europe. The European territory was reduced to the city of Constantinople and a narrow strip of country around it It is 9,254 sq. miles including the city of Istanbul and Adrianopole and is separated from Asia by the Bhosphorus and Dardanelles. The Turkey in Asia has 285,246 sq. miles. The Turkish State is defined as "republican, nationalist, populist, etatist, secular and revolutionary." The President is chosen from the deputies of the National Assembly ; his term of office is identical with the life of each Assembly. 487 members of the Assembly are elected by universal suffrage for a term of four years. Area : 296,500 sq. m. Population—24,797,000. Capital—*Ankara.*

UNITED KINGDOM—The United Kingdom consisting of England, Wales, Scotland, Northern Ireland, Isle of Man and the Channel Islands, lies off the north-west corner of Europe. The United Kingdom is a constitutional monarchy with a King and a Parliament consisting of two houses : the House of Lords and the House of Commons. Supreme legislative power is vested in Parliament which holds office for five years unless sooner dissolved. The executive power of the Crown is exercised by the Cabinet headed by the Prime Minister. The Prime Minister, normally the head of the party commanding a majority in the House of Commons, is appointed by the Sovereign ; with whose consent he in turn appoints the rest of the Cabinet. All the ministers must be members of one or the other house of Parliament. Area : 94,279 sq. m. Pop.—50,033,000. Capital —*London.*

UNITED STATES OF AMERICA—Federal Republic of North America extending from the Atlantic to the Pacific and from Canada to Mexico with outlying areas in Alaska, Puerto Rico, Hawaii, Guam and other Pacific islands. United States consists of 48 States and the federal district of Columbia. U.S.A. has a federal government. The Federal Government is based on the separation of powers—the President, House of Congress and the Supreme Court being designed to balance and restrain each other—hence the famous concept of 'checks and balances'. Each State is self-governing in local matters, but confides to the Central Government at Washington the control of foreign affairs and the army and navy. Police, education, public health, etc., remain within the scope of the individual states. The capital is Washington which belongs to no state, being administered directly by the Federal Government. Executive power is vested in the President elected by popular vote every four years. He chooses the members of the Cabinet, who are not (as in England) members of the legislature. Legislative power is vested in Congress, composed of two houses, the Senate with two members from each State elected to serve six years and the House of Representatives composed of a number of members varying according to the census elected for two years. There is adult suffrage. The third main component of the constitution is the Supreme Court at Washington. Area : 3,026,789 sq. m. Pop.—163,900,000. Capital—*Washington.*

UNION OF SOVIET SOCIALIST REPUBLICS—It is a Federal State of East Europe, North and West Central Asia. The U.S.S.R. emerged as a political entity under the leadership of Lenin after the Russian Revolution of 1917 and the downfall of the empire of Russia. It was proclaimed formally, 1922, after a confused interim period of civil war, war with Poland (1920); the first State basing its constitution on Marxist communism. Union of Soviet Socialist Republics is composed of Russian, Ukrainian, Bylorussian, Azerbaijan, Georgian, Armenian, Kazak, Turkmenian, Kirghiz, Tadjek, Uzbek, Karelo-Finnish, Eslonian, Latvian, Lithuanian and Moldavian Soviet Socialist Republics. It is the largest country in the World, stretches across two continents from the North Pacific Ocean to the Gulf of Finland. Vast territory of U.S.S.R., one sixth of the earth's land surface, contains every phase of climate except the distinctly tropical and a varied topography. The constitution of December 5, 1936 provides that the

highest organ in the U.S.S.R. is the Supreme Soviet consisting of two equal houses, that members thereof shall be chosen on the basis of universal, equal and direct suffrage by secret ballot for a term of 4 years, that regular sessions of each body shall be held twice each year, that there shall be a president of each house; that there shall be one Presidium of the Supreme Soviet, which shall consist of a president, 16 vice presidents (one vice-president for each constituent republic of the Union), a secretary and 15 members; that the Presidium shall act as an executive and directive body between the sessions of the Supreme Soviet.

The U.S.S.R. is probably the richest country in the world in mineral resources, containing deposits of almost every known mineral. It ranks among the top producing nations in coal, chromite, iron ore, petroleum, gold, copper, manganese, and other products. The richest mineral region is that of the Ural mountains. Area . 7,877,598 sq. m. Pop.—200,200,000. Capital—*Moscow*.

URUGUAY—Smallest Republic in South America. Area : 72,172 sq. m. Pop.—2,615,000 Capital –*Montevideo*.

VATICAN CITY—The independent sovereign State, created by the Treaty of 1929, of which the Pope is the head. It covers 109 acres in the heart of Rome and includes Vatican Palace, the Pope's official residence and the basilica and square of St. Peters. The immediate government of the State of Vatican City is in the hands of a Governor. He is assisted by a Counsellor-General and by a number of offices. There is no political parties and no parliament. **Area : 109 acres. Pop** -1,000

VENEZUELA—is the northernmost State of South America. **Area** : 352,150 sq. m. Pop.—5,949,000 Capital—*Caracas*

VIETNAM—is one of the former French Indo-Chinese Associated States. It is situated in south eastern Asia, bounded on the north by China, on the east and south by the South China Sea and on the west by Cambodia and Laos. In 1940 Vietnam was occupied by Japan and used as a base for the invasion of Malaya. After World War II, the Republic of Vietnam, at that time comprising Tongking and northern Annam, was recognised by the French as a free State within the Indo-Chinese Federation and the French Union. The French refusal to accede to the demands of Vietnam leaders headed by Dr Ho Chi-Minh, a communist, for the accession of Cochin-China to the new State and the continued landing of French troops led to the outbreak of hostilities with Ho Chi-Minh's Vietnam in 1946. Amid hostilities during which negotiations were carried, France installed the former emperor of Annam as the head of the French-supported State of Vietnam. Meanwhile, the Vietnam forces organised as the Democratic Republic of Vietnam and recognised by the U.S.S.R., China and other states, acquired a hold on most of Vietnam.

At the Geneva Conference in July, 1954 Vietnam was divided along the 17th parallel, into North and South Vietnam. The North Vietnam came under the control of the communists with 22 provinces with their capital *Hanoi*

South Vietnam also proclaimed a republic on 26th October 1955 after ousting its Chief of the State. Its capital is *Saigon*.

YUGOSLAVIA—is a federal republic of S.-E. Europe in the Balkan peninsula and is a federation comprising the People's Republics of Serbia, Croatia, Slovakia, Bosnia-Harzagina, Macedonia and Montenegro. Under the 1953 Constitution, Yugoslavia is a federal republic. Executive power is vested in the federal executive council of 30 to 45 members elected by and from the federal assembly and presided over by the President of the republic who is elected by and is responsible to the federal assembly. The assembly consists of (1) a federal council and (2) a council of producers. **Area:** 98,766 sq. m. Pop—17,799,000. Capital—*Belgrade*.

POLITICAL INFORMATION

RULERS OR HEADS OF THE WORLD

Country	*Ruler*	*Executive Head*
Afghanistan	Zahir Shah, *King*.	Sardar Md. Daud Khan, *P.M.*
Arabia-Saudi	Abd el Aziz *King*.	
Australia	Sir William Slim, *G G.*	R. G. Menzies, *P M.*
Austria	Adolf Schaerf, *P.*	Dr. Julius Raab, *Chancellor.*
Argentina	Pedro E Aramburu	
Belgium	Baudouin I, *King*.	Achille Van Acker, *P.M.*
Burma	U Win Maung, *P.*	U Nu *P M.*
Brazil	Juscelino Kubitschek, *P.*	
Bulgaria	G. Damianov, *P.*	Anton Yugov, *P.M.*
Canada	Vincent Massey, *G. G.*	John Diefenbaker, *P.M.*
Cambodia	Narodom Suramarit, *King*.	Sim Var, *P M.*
Chile	Carlos Ibanez del Campo *P.*	
China	Mao Tse Tung, *P.*	Chu En-Lai, *P M.*
Ceylon	Sir O. Goonatileke, *G. G.*	S. W R. D. Bandaranaike, *P M.*
Czechoslovakia	A Novotny, *P.*	Viliam Siroky, *P.M.*
Denmark	Frederick IX, *King*.	Hans C. Hansen, *P.M.*
Egypt	G. A. Nasser, *P.*	
Ethiopia	Haile Selassie I	B. M. Endalkatchew, *P.M.*
Finland	U. K. Kekkonen, *P.*	Rainer Von Fieardt, *P.M.*
France	P. Rene Coty	De Gaulle, *P M.*
Ghana	Earl of Listowell	Kwame Nkrumah, *P M.*
Germany W.	Theodor Heuss, *P.*	K. Adenauer, *Chancellor.*
Germany E.	W. Pieck, *P.*	O Grotewohl, *P M.*
Gt. Britain	Elizabeth II, *Q.*	Harold Macmillan, *P.M.*

Country	*Ruler*	*Executive Head*
Greece	Paul I. *King.*	C. Karamanlis, *P.M.*
Hungary	Istvan Dobi, *P.*	J. Kadar, *P.M.*
Iran	Md. Raza Pahlevi Shah	M. Eghbal, *P.M.*
India	Rajendra Prasad, *P.*	J. L. Nehru, *P.M.*
Indonesia	Dr. A. Soekarno, *P.*	Dr. Djuanda, *P.M.*
Iraq	Feisal II, *King.*	Abdul Karim el Kassim, *P.M.*
Italy	Giovanni Gronchi, *P.*	
Ireland	Sean T. I'Kelly, *P.*	Eamon Devalera, *P.M.*
Israel	Issac Ben-Zevi, *P.*	D. Ben Gurion, *P.M.*
Japan	Hirohito, *Emperor.*	N. Kishi, *P.M.*
Jordan	King Hussain I	Suleiman Nabulsi, *P.M.*
Korea (South)	Lee Bum Suk, *P.*	Syngman Rhee, *P.M.*
Korea (North)	Kim Du-bong, *P.*	Kim II Sung, *P.M.*
Laos	Sisavang Vong, *King.*	Souvanna Phouma, *P.M.*
Lebanon	General Fuad Chebab, *P.*	Sam es-Solh, *P.M.*
Luxemburg	Charlotte, *Grand Duchess.*	Joseph Bech, *P.M.*
Liberia	W. V. Tubman, *P.*	
Mexico	Adolfo R. Cortines, *P.*	
Malaya, Fed.	Tuanku Abdul Rahman, *K.*	Tunku A. Rahman Putra, *P.M.*
Monaco	Prince Rainier III, *K.*	
Morocco	Sultan Mahomed	M'Barek Bekkai, *P.M.*
Nepal	Mahendra Bir Bikram	
Netherlands	Juliana, *Queen.*	William Drees, *P.M.*
Norway	Olav V, *King.*	Einar Gerhardsen, *P.M.*
Pakistan	Iskandar Mirza, *P.*	Firoz Khan Noon, *P.M.*
Peru	Manuel A. Ugarteche, *P.*	
Philippine Is.	Carlos Gracia, *P.*	
Portugal	F. Craveiro Lopes, *P.*	A. O. Salazar, *P.M.*
Poland	J. Cyrankiewiez, Premier.	
Rumania	Dr. Petru Groza, *P.*	Chivu Stoica, *P.M.*
Saudi Arabia	King Saud	Amir Feisal, *P.M.*
Sudan	Abullah Khalil, *Premier.*	
South Africa	Dr. E. G. Jansen, *G. G.*	Dr. H. F. Verwoerd, *P.M.*
Spain	Genl. Franco, *Regent.*	
Sweden	Gustaf VI, *King.*	T. F. Erlander, *P.M.*
Switzerland	Hans Streule, *P.*	
Syria	Shukri al-Kuwalty, *P.*	Sabri El Asaly, *P.M.*
Thailand	Phumiu Aduldet, *King.*	P. Songgram, *P.M.*
Turkey	Celal Bayar, *P.*	Adanan Menderes, *P.M.*
U.S.S.R.	N. S. Khrushev, *P.*	
United States	D. D. Eisenhower, *P.*	
Vatican City	Pius XII, *Pope*	
Viet-Nam, N.	Ho Chi Minh, *P.*	
Viet-Nam, S.	Ngo Dinh Diem, *P.*	Pham Van Dong, *P.M.*
Yugoslavia	Josip Boriz Tito, *P.*	

PRESIDENTS OF THE U.S.

	Name	*Politics*		*Name*	*Politics*
1789-1797	G. Washington	Fed.	1869-1877	Ulyssess Grant	Rep.
1797-1801	John Adams	Fed.	1877-1881	R. B. Hayes	Rep.
1801-1809	Thomas Jofferson	Rep.	1881-1881	James Garfield	Rep.
1809-1817	James Madison	Rep.	1881-1885	Chester A. Arthur	Rep.
1817-1825	James Monroe	Rep.	1885-1889	G. Cleveland	Dem.
1825-1829	J. Quincy Adam	Rep.	1889-1893	B. Harrison	Rep.
1829-1837	Andrew Jackson	Dem.	1893-1897	G. Cleveland	Dem.
1837-1841	Martin Van Buren	Dem.	1897-1901	W. McKinley	Rep.
1841-1841	W. H. Harrison	Whig.	1901-1909	T. Roosevelt.	Rep.
1841-1845	John Tayler	Whig.	1909-1913	William H. Taft	Rep.
1845-1849	J. Knox Polk	Dem.	1913-1921	W. Wilson	Dem.
1849-1850	Zachary Taylor	Whig.	1921-1923	W. G. Harding	Rep.
1850-1853	M. Fillmore	Whig.	1923-1929	Calvin Coolidge	Rep.
1853-1857	Franklin Pierce	Dem.	1929-1933	H. C. Hoover	Rep.
1857-1861	J. Buchanan	Dem.	1933-1945	F. D. Roosevelt	Dem.
1861-1865	A. Lincoln	Rep.	1945-1953	H. S. Truman	Dem.
1865-1869	Andrew Johnson	Rep.	1953	D. D. Eisenhower	Rep.

BRITISH PRIME MINISTERS

Sir R. Walpole (Whig)	1721	Earl of Derby (Con)	1852
Earl of Wilmington (Whig)	1742	Visct. Palmerston (Lib)	1859
Henry Pelham (Whig)	1743	Lord Russell (Lib)	1865
Duke of Newcastle (Whig)	1754	Earl of Derby (Con)	1866
Duke of Devonshire (Whig)	1756	B. Disraeli (Con)	1868
Duke of Newcastle (Whig)	1757	W. E. Gladstone (Lib)	1868
Earl of Bute (Tory)	1762	B. Disraeli (Con)	1874
George Grenville (Whig)	1763	W. E. Gladstone (Lib)	1880
Lord Rockingham (Whig)	1765	M'quess of Salisbury (Con)	1885
Duke of Grafton (Whig)	1766	W. E. Gladstone (Lib)	1886
Lord North (Whig)	1770	M'quess of Salisbury (Con)	1886
Lord Rockingham (Whig)	1782	W. E. Gladstone (Lib)	1892
Earl of Shelburne (Whig)	1782	Earl of Rosebery (Lib)	1894
Duke of Portland (Coal)	1782	M'quess of Salisbury (Con)	1895
William Pitt (Tory)	1783	Earl Balfour (Con)	1902
Henry Addington (Tory)	1801	Sir H. Campbell-Bannerman (Lib)	1905
William Pitt (Tory)	1804	H. H. Asquith (Lib)	1908
Lord Grenville (Whig)	1806	H. H. Asquith (Coal)	1915
Duke of Portland (Tory)	1807	D. L. George (Coal)	1916
Spencer Perceival (Tory)	1809	A. Bonar Law (Con)	1922
Lord Liverpool (Tory)	1812	Stanley Baldwin (Con)	1923
George Canning (Tory)	1827	J. R. McDonald (Nat.)	1924
Lord Goderich (Tory)	1827	Stanley Baldwin (Nat.)	1924
Duke of Wellington (Tory)	1828	J. R. McDonald (Nat.)	1929
Earl Grey (Whig)	1830	J. R. McDonald (Coal)	1931
Viscount Melbourne (Whig)	1834	Stanley Baldwin (Coal)	1935
Sir Robert Peel (Con)	1834	N. Chamberlain (Coal)	1937
Visct. Melbourne (Whig)	1835		

Sir Robert Peel (Con)	1841	Winston Churchill (Coal)	1940
Earl Russell (Lib)	1846	C. R. Attlee (Lab)	1945
Earl of Derby (Con)	1852	W. S. Churchill (Con.)	1951
Lord Aberdeen (Coal)	1852	Anthony Eden (Con)	1955
Viscount Palmerston (Lib)	1855	Harold MacMillan (Con.)	1957

SALARIES OF THE HEADS OF GOVERNMENTS

President of U.S A	$ 100,000 per year*
British Prime Minister	£ 10,000 per year
President of the Indian Union	Rs 10 000 per month†
Prime Minister of Japan	110,000 yen per month‡

RULERS OF FRANCE SINCE WORLD WAR II
(*Fourth Republic*)

Vichy Government		**Fourth Republic**	
H. P. Pétain	1940-44	Vincent Auriol	1947-54
		Rene Coty	1954-
Provisional Government			
Charles de Gaulle	1944-46	**Fifth Republic**	
Felix Gouin	1946	Charles De Gaulle	1958-
Georges Bidault	1946-47		

RULERS OF GERMANY SINCE WORLD WAR I

Weimar Republic	1919-1933	**Federal Republic of Germany (Western)**	
F Ebert (*President*)	1918-25	Theodor Heuss (*President*)	1949-
Paul Van Hindenburg (*President*)	1925-35	K Adenauer (*Chancellor*)	1949-
3rd Reich		**Democratic Republic of Germany (Eastern)**	
Adolf Hitler (*Fuhrer*)	1939-45	Wilhelm Pieck (*President*)	1949-
Allied Occupation		Otto Grotewohl (*Prime Minister*)	1949-
Germany was divided into four zones under U S Great Britain, France and Soviet Union.			

RULERS OF U.S.S.R.

Nikolai Lenin	1917-24	Georgi M Malenkov	1953-54
Joseph Stalin	1924-53	Nikolai Bulganin	1954-57
		Nikita Khrushchev	1957-

RULERS OF GREAT BRITAIN
(House of Windsor)

George V	(1910-1936)	George VI	(1936-52)
Edward VIII	(1936-1936)	Elizabeth II	(1952-

---

*Plus taxable $50 000 for expenses and a non taxable sum (not exceeding $40,000 a year) for travelling and official entertainment expenses

† With emoluments etc

‡ Exclusive of allowances.

POLITICAL ASSASSINATIONS

1865 Abraham Lincoln, President U.S.A., April 14.
1872 Earl of Mayo, Governor-General of India.
1876 Abdul Aziz, Sultan of Turkey, June 4.
1881 Alexander of Russia and President Garfield, U.S.A.
1891 Marie F. Sadi-Carnot, President of France, June 24.
1896 Nasr-ed-Din, Shah of Persia
1894 President Carnot of France,
1898 Empress Elizabeth of Austria, Sept. 10
1900 Humbert of Italy.
1901 President McKinley, U.S.A., Sept. 6.
1903 King Alexander and his wife Draga of Serbia.
1905 Grand Duke Sergius of Russia.
1908 King Carlos and Crown Prince of Portugal.
1909 Prince Ito of Japan.
1911 Stolypin, Premier of Russia, 14th Sept.
1912 Jose Canalojas, Premier of Spain.
1913 King George I of Greece.
1914 Archduke Francis Ferdinand of Austria & his wife
1918 Czar Nicholas II and family, July 31 ; President Paes of Portugal.
1919 Amir Habibullah of Afghanistan.
1921 Dato, Premier of Spain ; Ta Kashi Hara, Japanese Premier.
1922 J. Narutowicz, 1st President of Poland, Dec. 16 ; Michael Collins, Irish Free State Premier.
1928 Ex-President Gen. Alvaro Obregon of Mexico.
1930 Premier Hamaguchi of Japan.
1932 President Doumer of France ; Ki Inukai, Japanese Premier, May 31
1933 Emir Faisal, King of Iraq, Sept. 9 ; Ion Duca, Rumanian Premier, Dec. 24 ; King Nadir Shah of Afghanistan.
1934 Austrian Chancellor Dr. Dollfuss ; King Alexander I of Yugoslavia ; M Barthow, Fr. Foreign Minister.
1935 Huey P. Long, U. S. Senator, Sept. 10.
1936 K. Takahasi, Finance Minister, Admiral Saito, Admiral Suzuki, Japan.
1937 General Baqir Sidqi, Dictator of Iraq, August 12.
1938 E. Von Rath of German Embassy, Paris.
1939 Rumanian Premier M. Calinescau.
1940 Leon Trotsky, Exiled Russian leader 21st August
1942 Hydrich German Protector of Bohemia-Moravia ; Admiral Darlan of France.
1945 Mehar Pasha Premier of Egypt, Feb. 24.
1946 Ananda Mahidol, King of Siam, July 9
1947 Gen. Aung San, Vice-President of Burma and five Cabinet Ministers.
1948 Mahatma Gandhi Jan 30
1948 Count F Bernadotte U.N. mediator Sept 17 ; Premier Nokrashy Pasha of Egypt.
1949 Syrian President Hosni Ziam. Aug. 14 ; Abdul Hussain, Ex-Persian Prime Minister Nov. 4
1951 Ali Razmara, Premier of Iran, Mar.7 ; King Abdulla of Jordan July ;, Liaquat Ali Khan, Premier of Pakistan, Oct. 16.
1955 President Antonio Remon of Panama.

Political Assassinations—(*Concld.*)

1957 Castillo Armen, President of Guatemala, July 26.

1958 King and Crown Prince and Nuri as-Said, Premier of Iraq.

FAMOUS ABDICATIONS

	B.C.		A.D.
Sulla, Roman Dictator	79	Ferdinand I (Bulgaria)	1918
	A D	Wilhelm II (Germany)	1918
Deocletian (Roman Emp.)	305	Karl (Austria)	1918
Edward II (England)	1327	Muhammad VI (Turkey)	1922
Richard II (England)	1399	George II (Greece)	1924
Charles V (Germany)	1555	Amanulla (Afghanistan)	1929
Mary Queen of Scots	1567	Alfonso (Spain)	1931
Christina (Sweden)	1654	Prajabardhak (Thailand)	1935
James II (England)	1688	Edward VIII (England)	1936
Charles IV (Spain)	1808	Zog I (Albania)	1939
Nepoleon I (France)	1814	Carol II (Rumania)	1940
Charlesx (France)	1830	Reza Shah Pelavi (Iran)	1941
Louis Philippe (France)	1848	Victor Emmanuel III (Italy)	1946
Isabella I (Spain)	1870	Umberto (Italy)	1946
Abdul Hamid II (Turkey)	1909	Simeon (Bulgaria)	1946
Manoel (Portugal)	1910	Michael (Rumania)	1947
Pu-Yi (China)	1912	Wilhelmina (Netherlands)	1948
Nicholas II (Russia)	1917	Leopold III (Belgium)	1951
Constantine (Greece)	1917 & 1922	Faruk I (Egypt)	1952
		Talal (Jordan)	1952

FLAGS OF COUNTRIES

Afghanistan—Three vertical bars, black, red and green, design in centre (red) bar composed of a mosque endorsed by a crescent formed of two ears of wheat joined at the bottom.

Argentina—Two colours distributed in three horizontal stripes Skyblue white/Skyblue with the Sun in the Centre

Belgium—Three vertical bands, black, yellow, red

Brazil—Green with 21 white stars forming Southern Cross on blue circle superimposed on gold diamond in centre

Burma—Red with dark blue canton bearing a large white five-pointed star with 5 smaller stars between the points

Ceylon—Dark red with yellow border and finials in corners, yellow lion symbol in centre, two vertical stripes of green and saffron at pole

Chili—White and red horizontal bars, with white star in blue canton

Denmark—Red with white cross.

Egypt—White crescent and three five pointed stars on green field

Etheopia—Three horizontal bands ; green, yellow, red with lion in yellow bar

Finland—White with blue cross.

Flags of Countries—(*Concld.*)

France—The 'Tricolour', three vertical bands, blue, white, red (blue next to flagstaff).

Germany (Western)—Black, red Gold horizontal bars.

Greece—Five blue, four white horizontal stripes, white cross on blue ground in upper corner.

Hungary—Horizontal bands, red-white-green, with coat of arms in centre.

India—Three horizontal strips, saffron, white and dark green, with 24-spoke wheel of Asoka in centre of white band.

Indonesia—Two horizontal bands, Red and White.

Iran—Three horizontal bars, green-white-red with golden lion insignia in white portion.

Iraq—Black-white-green horizontal bars; vertical red trapizoid near hoist, containing two white stars.

Ireland—Vertical bars, green-white-orange.

Italy—Three vertical stripes, dark green-white-red.

Israel—White, with two horizontal blue stripes, the Shield of David in the centre.

Japan—White ground charged with rising sun (red).

Mexico—Three vertical bars, green-white-red, with eagle and cactus emblem on white.

Netherlands—Three horizontal bars, red-white-blue.

Norway—Red with white bordered blue cross.

Pakistan—Dark green rectangle with white vertical bar at mast; white crescent and white heraldic five-pointed star in centre.

Peru—Three vertical bars, red-white-red, with coat of arms on white.

Philippines—Blue and red horizontal bars; white canton with gold sun, three gold stars.

Poland—Two horizontal bars, white and red.

Portugal—Green and red vertical bars with armillary sphere and shield in centre.

Rumania—Three vertical bars, blue-yellow red with insignia in centre.

Saudi Arabia—Green with white sword below, an excerpt from Koran in white Arabic characters.

Chinese Republic, 1949).

Spain—Three equal horizontal bands (red, yellow & red) with coat of arms in centre bands.

Switzerland—White cross on red ground.

Sweden—Extended yellow cross on medium blue field.

Thailand—Five horizontal bands, red, white, dark blue, white and red (the blue band twice the width of the others).

Turkey—White crescent and white five pointed star on red field.

U.S.A.—Thirteen stripes and 48 stars.

U.S.S.R.—Red ground with gold hammer and sickle below five pointed gold star in upper corner nearest staff.

United Kingdom—Union Jack (blue ground with superimposed crosses of St. George, St. Andrew and St. Patrick in red and white).

Yugoslavia—Three horizontal bars, blue, white, red with red star in centre.

OTHER FLAGS

NATO flags—is navy blue with white ensign

Red Crescent flag—with a white field is a flag of the Geneva Convention It is used in place of Red Cross flag in all Muslim countries except Iran.

Red Cross flag—is the most widely used flag of th Geneva Convention It has Red Cross against white background

Red Lion Flag—is the flag of the Geneva Convention in Iran. Flag has a white field

United Nations—White U N emblem (global map projected from the North Pole and embraced in twin olive branches) centred on a rectangular blue banner

Pan American Union Flag—Two pointed Pennant

NATIONAL DAYS

Afghanistan—May 27 (Independence Day)

Argentina—July, 9 (Proclamation of Independence, 1816)

Australia—Jan 26 (Australia Day)

Brazil—Sept 7 (Proclamation of Independence, 1822)

Burma—Jan 4 (Independence Day)

Belgium—July 21

Canada—July 1 (Confederation Day)

Ceylon—Feb. 4 (Independence Day)

China—Oct. 1 (Proclamation of Chinese Republic 1949)

Denmark—March 11, (Birthday of the Danish King)

Egypt—Nov 14 (Anniversary of the Battle for Independence, 1922)

France—July 14 (Taking of the Bastille 1789)

Finland Dec 6 (Proclamation of Independence 1917)

India—15th August (Independence Day)

Indonesia—August 17 (Independence Day)

Ireland—March 17 (National Day).

Israel—April 27 (Independence Day)

Italy—June (Founding of the Italian Republic)

Japan—April 29 (Birthday of the Emperor)

Mexico—Sept 16 (Proclamation of Independence 1820).

Nepal—Dussera Day

Netherlands—April 30 (Queen's birthday)

Norway—May 17 (Constitution Day)

Pakistan—August 14 (Pakistan Day)

Peru—July 28

Philippines—July 4 (National Day)

Poland—July 22 (National Day).

Switzerland—August 1 (founding of Confederation)

Thailand—June 24 (National Day)

Turkey—Oct 29 (Declaration of the Republic).

U S A—July 4 (Independence Day).

U S S R—Nov 7 (National Day of Soviet People, October Socialist Revolution in Russia, 1917)

U. K.—Queen's official birthday.

POLITICAL ABBREVIATIONS

ECAFE	Economic Commission for Asia and Far East.
ECE	Economic Council for Europe.
ECO	European Coal Organisation.
FAO	Food & Agricultural Organisation.
GATT	General Agreement on Trade and Tariff.
ICEF	International Children's Emergency Fund.
ICAO	International Civil Aviation Organisation
IFC	International Finance Corporation.
FUND	International Monetory Fund.
ITO	International Trade Organisation.
IAEA	International Atomic Energy Agency.
ILO	International Labour Organisation.
UNICEF	United Nations International Children's Emergency Fund.
UNRRA	United Nations Relief and Rehabilitation Administration.
WHO	World Health Organisation.
WMO	World Meteorological Organisation.
IMF	International Monetory Fund.
IRO	International Refugee Organisation.
ITU	International Telecommunication Union.
NATO	North Atlantic Treaty Organisation.
NRA	National Recovery Administration.
MEDO	Middle-East Defence Organisation.
OEEC	Organisation for European Economic Co-operation (Marshall Aid).
SHAPE	Supreme Head-quarters of Allied Powers, Europe.
SEATO	South-East Asia Collective Treaty Organisation.
SEADO	South East Asia Defence Organisation.
UNESCO	United Nations Educational, Scientific and Cultural Organisation.
CARE	Co-operative for American Remittances Everywhere.
UNCAFE	United Nations Commission for Asia and Far East.
UNCIP	United Nations Commission on India & Pakistan (Kashmir).

NAMES AND COLOURS OF FLAGS

Union Jack—British National Flag.

Old Glory—Flag of U.S.A.

Flag of Truce—White Flag.

Flag of Distress—Flown upside down.

Red Flag—Once a signal for battle, now name given to Communist and Soviet Russian flags.

Red Cross Flag—Same as Swiss flag but with colours reversed.

Yellow Flag—Flown on a ship with persons suffering from contagious or infectious disease.

NATIONAL ANTHEMS

Canada—The maple leaf forever.
U.S.—Star-spangled banner.
England—God Save the King or Queen.
France—La Marseillaise.
Greece—Hail, oh, hail liberty.
Soviet Union—Hymn of the Soviet Union.
Sweden—Song of the North.
Japan—Kimigayo.
India—Jana-gana-mana adhinayaka and Bande Mataram.

INTERNATIONAL ORGANISATIONS

Rio Treaty

United States
Cuba
Honduras
Mexico
Guatimala
El Salvador
Nicaragua
Haiti
Dominician Rep.
Costa Rica
Panama
Venezulea
Ecuador
Colombia
Peru
Bolivia
Paraguay
Brazil
Chili
Argentina
Uruguay

Nato

U. S.
Canada
Iceland
Norway
United Kingdom
Netherlands
Denmark
W. Germany
Belgium
Luxembourg
Italy
Portugal
France
Greece
Turkey

Anzus Treaty

U. S.
New Zealand
Australia

Manila Treaty (SEATO)

U. S.
United Kingdom
France
New Zealand
Australia
Thailand
Pakistan
Philippines

Bagdad Pact

United Kingdom
Turkey
Pakistan
Iraq
Iran

Colombo Plan

Australia
Burma
British Borneo
Cambodia
Canada
Ceylon
India
Indonesia
Japan
Laos
Malaya Federation
Nepal
New Zealand
Pakistan
United Kingdom
Viet Nam
United States (*Associate*)

Organisation of American States

Argentina
Bolivia
Brazil
Colombia
Costa Rica
Cuba
Dominician Rep.
Ecuador
El Salvador
Guatimala
Haiti
Honduras
Mexico
Nicaragua
Panama
Paraguay
Peru
U. S. A.
Venezuela

Warsaw Treaty

Albania
Bulgaria
Czechoslovakia
East Germany
Hungary
Rumania
U. S. S. R

Commonwealth of Nations

United Kingdom
Canada
Australia
New Zealand
Union of South Africa
India
Pakistan
Ceylon
Ghana
Federation of Malaya

COMMUNIST COUNTRIES

	Area (sq. m.)	*Population*
Soviet Union	8,700,000	200,200,000
Outer Mongolia	615,000	1,000,000
Albania	10,600	1,400,000
Bulgaria	42,800	7,600,000
Rumania	91,600	17,700,000
Hungary	35,900	9,800,000
Poland	120,350	28,200,000
Czechoslovakia	49,400	13,400,000
North Korea	48,500	8,200,000
East Germany	42,100	17,600,000
China	3,700,000	627,800,000
North Vietnam	63,000	12,000,000
Total	13,519,250	944,900,000

POLITICAL PARTIES AND GROUPS

Parties in U.S.A.—There are no fundamental differences between two major political parties of the United States—the Republican and the Democratic. Strictly speaking, two parties can not be exactly classified under the left and right pattern and there are conservative as well as progressive Republicans as there are conservative and progressive Democrats. *Republican Party* is traditionally the high-tariff party strong in the Northern and Central States. In foreign policy, the party wants honourable and just peace as the supreme goal. In domestic policy, its objectives are a balanced budget, a reduced national debt, an economical administration and a cut in taxes. *Democratic Party* is traditionally the low-tarff party, strongest in the Southern States. In foreign policy it declared that peace with honour was the greatest goal. It reaffirms Wilsonian principle of the right of national self-determination, supports expansion of world trade.

Arab League—An association of Arab States formed on 22nd March, 1945. The League has as its purpose the strengthening of the relations between member States ; the co-ordination of their policies in order to achieve co-operation between them and to safeguard their independence and sovereignty, and a general concern with the affairs and interests of the Arab countries. Eight of the ten independent Arab States are members—Iraq, Jordan, Lebanon, Libya, Saudi Arabia, Sudan, United Arab Republic of Egypt, Syria and Yemen.

Kuomintang—The Chinese Nationalist Party formed originally by the followers of Sun-Yet-Sen in 1905. The party aims at the establishment of a modern, democratic, national state in China. It stands for national unity, territorial integrity and a strong central government. It insists on full sovereignty of China and the abolition of any unequal treaties. The party has now been driven out from the mainland of China by the communists and is now confined to the Island of Formosa.

Centre Parties—Parties which are more conservative than left-wing parties and more progressive than right-wing parties.

Cominform—An organisation of the chief European communist parties formed at Belgrade in October 1947 to co-ordinate the activities of the communist parties on the basis of mutual agreement.

Conservative Party (England)—One of the chief political parties of England It is the successor of Tory Party of the 18th and 19th centuries It is a party of the right, in favour of existing social and economic system and is opposed to socialism Its policy is directed at the maintenance of the Empire at the development of home agriculture and industry and at the safeguarding of private property. The external policy of the party is traditionally nationalist and imperialist Conservative party is opposed to further nationalisation, and advocates, where practicable, restoration of free enterprise.

Revolutionary Communist Party--A minor group professing Trotskyism, existing in almost all countries They are left wing communists more radical and revolutionary than Stalinists, official communists, with whom they are in conflict

Falangists—The Spanish Fascist Party led by General Franco.

I L P—Independent Labour Party in England—a small semi-radical group in British Labour with a Marxist programme—stands between Labour Party and Communists

Communist Party—is the world organisation of Marxist Socialists which once operated through branch national parties very loosely affiliated to the Communist International or "Comintern', now abolished by the order of Stalin The 'International' has again been revived under the name of 'Cominform' which is said to be the common information Bureau of Communist Parties of nine countries of Europe

Fianna Fail—De Valera's radical Nationalist party in Ireland.

Labour Party (England)—It is the British Socialist Party composed of Trade Unions Socialists and Co operative Societies which came into official existence in 1908 It aims at bringing about, by legislation changes which will benefit the poorer classes Nationalization of basic industries and public utilities is the main programme of the party The party's policy is not based on Marxism—instead, it is derived from the ethical idealism of the labour, co operative and radical movements and the practical rationalism of Fabianism

French Parties—(1) *Mouvement Republican Populaire* (M.R P.) is a bulkwork against communism and its programme has been moderately leftist in character and at the same time it contains strong catholic elements The party stands for limited nationalization, collective bargaining full employment and development of exports. (2) *Radical Socialist Party* is a left centre party The party favours constitutional reform and better distribution of taxes and reform of social security (3) *Independent Republicans* are solidly devoted to defence of free enterprise (4) *Socialist Party.*

Liberal Party—Progressive party of England, stands for free

trade, was known as Whig Party in the 18th and 19th centuries, once a great political force, but now an insignificant party.

Anti-Fascist People's Freedom League, Burma (A.F.P.F.L.)—is the national organisation of the Burmese people started by its president late General Aung San who organised Burmese insurrection against Japan in early 1945.

Popular Front—Political Party in different countries composed of communists, socialists and other democratic parties against Fascism and Nazism.

Egyptian Parties—The nationalist party of Egypt *Wafd*, established in 1919 by Zaghlul Pasha, the great Egyptian nationalist. 1927—the *Saadist Party* and in 1988 the *Kotla* (Ind. Wafdist bloc). Two factions split off from the *Wafd* after the death of Zaghlul in 1945. All Egyptian parties were nationalists in the sense that they wanted to rid the country of the British influence. *Moslem Brotherhood*—It has always claimed not to be a political party but rather a national movement seeking to reform Egyptian life on the basis of 'Islamic principles.' It was suppressed sometimes.

Parties in Pakistan—The following are the main parties of Pakistan—*Muslim League*, *Republican Party*, *Awami League*, *National Awami League*, *Nizami Islam* (East Pakistan), *Ganatantri Dal* (East Pakistan).

INDIAN POLITICAL PARTIES

Indian National Congress—The object of the Indian National Congress as adopted in 1948 is now "the well-being and advancement of the people of India and the establishment in India by peaceful and legitimate means of a Co-operative Commonwealth based on equality of opportunity and of political, economic and social rights and aiming at world peace and fellowship." The Congress advocates a democratic secular Government with a welfare State as the goal. It endeavours to maintain a strictly independent position in world affairs.

Communist Party of India—Organised in its present form in 1934. The party moulds its policy with reference to the policy of Russia in international affairs, rather than according to the conditions obtaining in India. They look to Russia for guidance and inspiration and follow orthodox international communist line. The party's aim is "the organisation of the toiling masses in the struggle for the victorious anti-imperialist and agrarian revolution for complete national independence, for the establishment of a people's democratic state led by the working class, for the realisation of the dictatorship of the proletariat, and the building up of socialism according to the teachings of Marxism and Leninism."

Proja Socialist Party—formed by the fusion of the Socialist Party and the Kisan Mazdoor Proja Party. Party declares as its objective the establishment of a democratic socialist society in India.

Forward Bloc—came into existence in 1938 when Subhas Bose sought to rally leftists against the Congress orthodoxy. It favours a programme of direct action and repudiates all compromise. The party's objective now is the establishment of Socialist State in India with complete severence of relations from the British Commonwealth.

Forward Bloc (Marxist)—This is a group which has severed its connection with the parent body and has formed a new party on January 23, 1950. The Desh Sevak Party of Punjab merged into it.

Bharat Sevak Samaj—New national organisation brought into existence as a result of Government initiative. It is a scheme evolved to rally all patriots for the task of quickly building up economic strength of the country promoting the social well-being of the community and mitigating privations and hardship of its less-favoured sections. It is not a political organisation. It welcomes into its fold men of all thoughts save those who believe in destroying the present order of things by violent methods and those who want communal and sectarian idealism.

National Liberal Federation—was formed in 1908 when the moderates broke away from the Congress and formed a separate party. It advocated gradual progress through peaceful and constitutional means as opposed to the revolutionary creed and policy of the Congress. Their policy is very 'moderate' and it has never found support of the Indian masses. It represents a doctrine which has no place in a dynamic India. The Liberals are opposed to direct action of any sort. They are wedded to constitutional forms of agitation, whatever they may mean.

Scheduled Caste Federation—Party was established by Dr. Ambedkar. It has no political or economic platform. It had centred all its agitation for demanding extraordinary privileges. After partition it has changed its outlook.

Hindu Mahasabha—The aim of the Mahasabha is the protection and promotion of all that contribute to the advancement, strength and glory of Hindu Rashtra, Hindu culture and Hindu polity, and as a means to that end, to achieve Hindu Raj and re-establish the integrity of the State of Bharat by constitutional means.

Peasants and Workers Party—The party's programme includes "severance of all connection with British imperialism, abolition of landlordism without compensation, confiscation of foreign capital invested in banks and industries." The programme also urges nationalisation of big industries, banks and insurance companies and to perpetuate the present-day social injustice by believing in the re-organisation of States on a linguistic basis. This is a Marxist-Leninnist Party following the guidance of Cominform.

Democratic Vanguard—This party was formed in 1943 by those who seceded from the Radical Democratic Party. Its object is the "attainment of the democratic revolution" in India.

Rastriya Swayam Sevak Sangh—It was started in 1925. Its objects are the military training of the Hindus, development of social consciousness and building up of character, and promotion of physical, intellectual and moral well-being of the Hindus and the establishment of Hindu Rashtra. The party has now stated its main objective as revival of Hindu culture.

Socialist Republican Party—was started by late Sarat Chandra Bose in 1948 with the object of complete independence of India free from all foreign influences. The setting up of Socialist Republic on the linguistic basis and the establishment in the country of a Union of Socialist Republics are the main objects of the party.

Sarvodaya Samaj—A fellowship of those who believe in the Gandhian ideals. It is not an organisation but a voluntary brotherhood of constructive workers who have faith in Gandhian ideals of truth and non-violence. Its central idea is the insistence on the purity of means in the same way as of ends. Khadi, Harijan uplift, service to Adibasis, leprosy relief work and promotion of communal harmony form the main activities of Samaj.

Revolutionary Socialistic Party of India—preaches Marxist doctrine and wants to establish a socialist state in India through revolution.

Revolutionary Communist Party of India—Another Marxist party in India which calls itself Leninist, and characterizes Congress as bourgeois organisation. It is anti-Soviet with Trotskyite leanings.

Kishan Party—is a peasant movement with socialistic outlook. Its programme is the amelioration of the Indian peasants. Though separate from the Congress, its programme is identical with Congress.

Bharatiya Jan Sangh—A political party founded in 1951 by Dr. Shyama Prosad Mukerjee. It believes in Akhand Bharat and also demands a more stiff attitude towards Kashmir question.

All India Muslim Majlis—Progressive Nationalist Party of Muslims, was opposed to creation of Pakistan and supporters of Congress ideals.

Jamiat-ul-ulema-Hind—An organisation of Moslem divines and religious teachers. It has always supported the political programme of the Congress. It was a supporter of Indian independence on religious grounds. It has now dropped its political programme.

Shia Political Conference—represents Shia Moslems and is the most important minority among the supporters of the Congress.

Momin Ansar Conference—Its main policy has centred on opposition to Muslim League and to Pakistan. The Conference is the full supporter of Congress politics.

Akali Dal—A politico-religious party of a section of the Sikhs. It aims at the establishment of a Punjabi Suba as a homeland for the Sikhs within Indian Union and advocates the adoption of Gurumukhi language as state language for the Punjab State. So far as politics is concerned, the party has recently merged with the Congress and wants to confine its activities to social, educational, economic and cultural field.

POLITICAL TERMS

Absolutism—The system of unlimited government, the governed having no representation, vote or other share in the administration.

An absolute ruler governs in accordance with his own will without consulting the people and without being bound by any law. Absolutism is opposite to constitutional government and democracy and the antithesis to the separation of powers.

Amnesty—An act of Government granting exemption from criminal prosecution and punishment

Ambassador—High ranking minister representing his government in a foreign country.

Appeasement—A policy of pacification or yielding to the demands of a potential enemy rather than opposing him by force.

Anschluss—German word meaning a "joining." Politically, it refers to the union of Austria with Germany effected on March 12, 1938.

Apartheid—An African word for "separateness." It means complete segregation socially and politically, of white and non-white peoples, and among the non-whites of Bantus, Indians and coloured peoples of half-castes in South Africa The government programme has centred on abrogation of native representation in the Assembly, removal of coloured voters from the electoral roll in Cape Province and forced physical separation of residential areas.

Agent Provocateur—A French term for political agent sent during political or social conflicts into the adversary's ranks to provoke in the guise of an adherent incidents and compromising actions.

Austerity—A severe or enforced economy characterized by a lack of luxuries (as post-war *austerity* of Great Britain).

Authoritarianism—The political system in which the government is based on what is claimed to be the natural need for a strong and resolute authority to direct the state without reference to the fluctuating opinions of the people, as opposed to the democratic system based on the freely expressed opinions. The term is a milder name for absolutism. Totalitarian systems like Fascism, Nazism and Communism are extreme forms of authoritarian government, although Soviet Union would reject the application of the term to itself.

Anti-Semitism—Opposition to the Jewish race. The movement became conspicuous in Europe during the last quarter of the 19th century. The movement appears to be based on economic rather than religious or political cause. It flared up strongly in Nazi Germany under Hitler.

Armed Neutrality—The position assumed by a neutral when it serves notice on belligerents that it is prepared to protect its neutral rights by force.

Autocracy—means the unlimited rule of an individual.

Autarky—A term used for the idea of national self-sufficiency. The usual motive of autarky is the striving of domestic producers to monopolise the market, preparation for war and blockade and a general transference of nationalism to economists. Means for fostering autarky include protective tariffs, a ban of imports, subsidies and deliberate planning

Armistice—Agreement between combatants to cease fighting. It may be either temporary for the purpose of removing the wounded or burying the dead or it may be a preliminary to a general peace.

Anarchism—A political doctrine standing for the abolition of every organised authority and of State machinery. The anarchists hold that every form of government tantamounts to tyranny. They want to do away with all forms of state and government and to substitute for them free associations of individuals or groups without any coercive organisation, without written law, police courts, prisons or armed forces. In such a society men are expected to live together harmoniously on the basis of voluntarily respected mutual contracts.

Bamboo Curtain—Military, political and propaganda barrier isolating territory controlled by Chinese communists.

Ballot—The paper on which are printed the names of candidates for office in elections. The elector indicates his choice by marking a cross in plurality electoral systems.

Bicameral System—That form of government which consists of two separate houses or chambers in which the concurrence of both is necessary to the enactment of legislation. Adopted to act as a check upon hasty or ill-considered legislation.

Bilateral—Two-sided, a term used for agreements concluded between only two parties, as distinct from multilateral agreements which are between several parties.

Biological Warfare—Warfare in which living organisms, specially disease germs, are used against human, animal and plant life; also warefare involving the use of synthetic chemicals against plants.

Bhoodan Movement—The rehabilitation of landless agricultural worker is the primary objective of Bhoodan movement. The philosophy behind the Bhoodan movement is that 'all the land belongs to God' or the community and therefore it must be shared with those who are ready to work on it for the community. This movement was started on April 18, 1951 by Acharya Venoba Bhave. While it began as a mere land-gift movement, it has grown to incorporate the *Sampattidan*, *Koopdan*, *Haldan*, *Grihadan*, *Buddhidan*, *Shramdan*, etc.

Balance of Power—This phrase means the preservation of an equality of strength between countries or groups of countries. The idea is that no one country shall become too powerful for the safety of the others.

Blockade—A term used in international law for the prevention of goods entering or leaving an enemy country by land or sea. Neutral States are affected most by a blockade by sea, for if their ships try to approach the ports of blockaded country, they and their cargoes are liable to be confiscated by the blockading force.

Bourgeois—French word for the middle class. They comprise capitalists, manufacturers, merchants, bankers, generally all independent producers, traders and employers, also directors and managers and members of the professions with a corresponding income and social status, in contrast to the *Proletariat*, the working class without any property who live on selling their labour.

Bloc—means an association of legislative members or of political workers of different parties, formed to support a certain measure or ministry. A French word meaning 'mass' or 'group.'

Bolshevism—accepts the doctrine that an irreconcilable antagonism exists between the propertied class or bourgeois and the property-less workers. It invites as inevitable and necessary class war, the object of which is the destruction of all classes, except the proletariat, in whose interest and by whom future society will be organised and governed on a communistic basis.

Book burning—Systematic destruction, usually by a government, of books believed to contain dangerous ideas, hence, the supression of ideas.

Brain Trust—In U.S.A. the nickname for a group of economists and businessmen who were officially advisers to President F. D. Roosevelt during the first year of his presidency and are believed to have greatly influenced his 'New Deal' policy. The term has since been applied to other groups of experts believed to be influencing government.

Brainwashing—The forcible replacement of one set of political ideas by another set, specially through indoctrination or mental torture.

Buffer State—A small state established or preserved between two greater states to prevent direct clashes between them.

Bureaucracy—Government by an elaborate system of administrative departments and officials, which generally tends to become unwieldy and laborious in its operation. It produces red tape or over-systematization. Its most frequently charged defects are rigidity, conservatism and spirit of routine.

By-election—Election to a seat rendered vacant during the running term of an elected body due to resignation, death or any other subsequent disqualification.

Capitalism.—The economic system founded on free enterprise and private ownership of the means of production and distribution.

Caucus—A meeting or conference of members of a political party in an ensuing election or other political contest.

Civil Disobedience—Refusal to co-operate with government without, however, using violence.

Coalition—is a combination of political parties having different or opposed interests, effected with the object of carrying through or resisting a particular policy.

Commonwealth of Nations—The Commonwealth is an association of ten sovereign independent States—the United Kingdom, Canada, Australia, New Zealand, South Africa, India, Pakistan, Ceylon, Malaya Federation and Ghana with their dependencies. The status of the Commonwealth was settled at the Imperial Conference of 1926 which described Commonwealth as "autonomous communities within the British Empire, equal in status, in no way subordinate to one another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown and freely associated as members of the British Commonwealth of Nations." A further important pronouncement was made by the Prime Ministers' Meeting of 1949 which declared, "The Government of India have....declared and affirmed India's desire to continue her full membership of the Commonwealth of Nations and her acceptance of the King as the symbol of free association of the independent member nations and as such as the head of the Commonwealth."

Concordat—An agreed pact; specially between Pope and a government equivalent to international convention.

Contraband—Goods or merchandise the importation or exportation of which is forbidden; in war time applied specially as between neutrals and belligerents.

Communism—represents revolutionary socialism, hostile to the slow progress or gradual reform and progressive compromise. Communism believes in the dictatorship of the proletariat for a transitional period, after which a free society would come into existence in which everybody would contribute to the common wealth according to his capacity and receive a reward according to his need. Communism proclaims the equality of all peoples and races and believes in the final establishment of an international order.

Colour bar—The denying by white men, Europeans or persons of European descent, of legal and social rights to coloured persons.

Collective Responsibility—In countries with parliamentary government, the joint responsibility of the government to the Parliament. The government is responsible for the political actions of each member of it and each member is responsible for the actions of the government.

Collective Security—Security of all the members of an association of nations from aggression by any other nation or nations.

Cold War—A struggle between two nations or groups of nations, waged by use of political and economic strategy, propaganda and other measures short of armed combat.

Corporate State—A state organised politically on the basis of vocational corporations instead of territorial units. A corporate parliament does not consist of representatives of territoral constituencies but of delegates of professional corporation who are sent to the parliament according to the quota system.

Corridor—A strip of the territory of one State running through that of another, usually to give access to the sea.

Coup D'etat—A sudden change of government by force effected by holders of government or military power.

Constituent Assembly—is an assembly convened for the purpose of drawing up a constitution, but it only comes—and this is the vital point—after there is a breakdown in the existing machinery of Government and a change has been brought about in the *Status quo.*

Condominium—A territory over which responsibility is shared by two administering powers.

Conscientious Objector—Person who refuses to enlist in the military service on moral or religious grounds.

Colony—A company of people, purposely or otherwise transplanted from their mother country and remaining subject to the jurisdiction of the parent State.

Crown Colony—A British Empire colony in which the Crown retains some kind of control over legislation.

Customs Union—A union of states or nations for the purpose of establishing orderly trade with one another and a common tariff on imports, exports and goods in transit as now established in Low Countries of Europe.

Democracy—"Government of the people, by the people, and for the people"—*Lincoln.* It is based upon freely elected representative institutions and upon an executive responsible to the people. It is based upon the fundamental assumption of the equality of all individuals and of their equal right to life, liberty (including the liberty of thought and expression) and the pursuit of happiness.

Demarche—Diplomatic term from the French, used for representations whether moderate proposals or severe threats, made by one state to another through diplomatic envoys.

Diarchy—A form of government in which the supreme power of the state is vested in two bodies or persons.

Diehards—Extremely orthodox and unbending members of a party; it was specially applied to the members of the Conservative party.

Dictatorship—Control of Government or ruling power by a minority or by an individual. In ancient Rome, the dictator was recognised as a ruler. In modern times, Dictatorship flared up in Europe after the World War I. Mussolini in Italy and Hitler in Germany seized power unconstitutionally but with the support of the people.

Dollar Diplomacy—A nickname for the foreign policy of U.S.A. for the purposes of expanding American financial and commercial interests abroad under the guise of promoting international friendship.

Dominion Status—Dominions "are autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, united by a common allegiance to the Crown."

Diplomacy—Art of negotiation specially between countries. Each country possesses a diplomatic service to carry on negotiation with foreign countries. Some diplomats such as ambassadors, ministers, envoys, etc., go abroad and live in a foreign capital to keep in touch with the Government. Their business is to watch over interests of their country and to send regular reports upon all that concerns it.

Electoral College—Any body of electors limited in number, meeting in one place to choose a public official.

Extra-Territoriality—The legal fiction that foreign diplomats and diplomatic agencies are outside their country of residence in spite of physical presence. Embassies, etc., form foreign islands, so to speak, within the territory of a state. They are not subject to its laws.

Extradition—Surrender of a fugitive from justice by one country or state to the authorities of another.

Espionage—A French word which expresses more than English word spying; it implies an organised system.

Federalism—A system of government wherein political powers of the state are constitutionally distributed between National Government and the local Governments or member units which are called 'States,' 'Provinces,' etc. The division of powers between

Federal government and separate states is laid down in the constitution and varies between one another.

Fifth Column—Secret supporters of an enemy engaged in sabotage or other subversive activity within defence lines.

Filibuster—A politician who attempts to delay, or stop the passing of a bill by endless speech-making and other legitimate practices.

Geneva Convention—An international treaty regulating the treatment of the wounded in war, adopted at a conference held in 1864 and replaced by the existing agreement of 1906.

Guerilla—Irregular warfare. Guerilla warfare consists in attacks upon a regular army by bands of irregular troops, usually the inhabitants of an invaded country.

Genocide—The destruction of a human group, racial, ethnic, religious or national by slaughter, starvation, sterilization, compulsory abortion, mass kidnapping or other violent means. The word was coined by a Polish lawyer R Lemkin In 1948 the U.N. approved a new international law defining Genocide as a crime. The convention having been ratified by 20 U.N. members, became effective on Jan. 12, 1951.

Gentleman's Agreement—An informal international agreement based on a verbal exchange or corespondence, without a treaty or convention being signed.

Gerrymander—A practice of laying out electoral districts to ensure the majority of votes for party in power.

Hegemony—Leadership ; especially of one state or a group.

Imperialism—Policy of empire-building and conquests transcending national frontiers. It now means for every policy of conquest and colonial expansion.

Internationals—Socialist movement in which socialists from many countries are united. There have been three such movements or Internationals, and each has held several Congresses. *First International*—accepted a programme drawn up by Karl Marx and had lasted from 1866 to 1874. *Second International*, in which there was trade union element, was organised in 1889. It sought to compass the aims of Socialism by constitutional, not revolutionary action and it held several congresses between 1882 and 1930. *The Third International* was organised in Moscow and was revolutionary in its aims. It declared in favour of establishing communism by force.

Imperial Preference—In the British Empire, the trading system whereby the members of that Empire give to each other preferential treatment in their tariff regulations and import quotas.

Iron Curtain—A barrier created by such means as censorship and prohibition of free travel to isolate Russian controlled territory from outside contacts, hence, any similar barrier against communication.

Isolationism—The path of keeping aloof from affairs of other countries.

Joint Responsibility—The guiding principle of the Cabinet system of Government. Although every minister is in charge of a particular portfolio, all ministers are jointly responsible to the legislature and a vote of no-confidence against one is a censure on all.

Lame Duck—Members of the legislature who fail to get re-elected but continue to function as legislators until the new legislature meets, are known as Lame Ducks. The term Lame Duck was first used in the United States.

Lebensram—German word for 'living space', a new word for German imperialism. It was used to stress that population is too dense and to claim such territories as agricultural regions towards Black Sea and colonies overseas.

Leftist—One who belongs to a radical or revolutionary party; also one who holds or advocates ultraliberal principles.

Lend-Lease—The system of lending and leasing supplies and installations to each other developed by the allies in the World War II. It was started by President Roosevelt.

Marxism—The socialist doctrine following the theories of Karl Marx (Germany). His ideas are that all wealth is produced by Labour and should go to labour, and that as this leaves nothing for the capitalist, who can therefore never accept the system, the worker must prepare for class war in which capitalism will be destroyed. An essence of his theories is that history is largely determined by economic forces.

Moratorium—A period during which no business engagements are completed or debts or liabilities enforced. A moratorium is declared by the government in times of a financial crisis.

Most-Favoured Nation Clause—A clause customary in treaties of commerce whereby signatories undertake to extend automatically to the other party any reduction in tariff or other economic favour which they may in future accord to any other country. Thus if a country at a later date grants a tariff reduction in respect of some articles to some other country, this will also apply to all the countries with which it has previously made trade treaties.

Naturalization—The word is used for the admission of a person of foreign nationality into that of a country he desires to adopt. An oath of allegiance has to be taken.

Non-aggression Pact—Treaty between two or more states pledging each not to attack the other and to settle their disputes by negotiation or arbitration.

Non-intervention—Generally the principle of abstination from interference with the internal affairs of other nations. It rests on the recognition of sovereignty as the permanent factor in international relations and is one of the most often involved principles in the policies of the world.

Non-belligerency—This word is used for sympathetic attitude, short of fighting which a country adopts towards one side in war time. It therefore differs from the strict impartiality called for in neutrality.

Nationalization—Taking management by the state of trades and industries, etc., with or without compensation; changes from private to state ownership.

Neutrality—In international law, condition of a state abstaining from participating in a war between other states and maintaining an impartial attitude in its dealings with the belligerent states, with the recognition of this impartiality by the warring states.

Open Door Policy—System of keeping trade open to all countries, disregarding monopolies or preferences on equal terms without privileges or discrimination.

Opposition—Freedom to oppose the existing government is fundamental to democracy and the British practice of calling the Opposition "His Majesty's Opposition" on the analogy of "His Majesty's Government" is a recognition of the fact that the opposition is as loyal and essential to the state as the government.

Ordinance—That which is ordained by authority. Ordinance is an act promulgated by the chief of the state without passing through the legislature of the country.

Panch Shila—Five principles of co-existence jointly enunciated by Jawaharlal Nehru and Chinese Prime Minister Chou En-lai. The countries that have so far specially commended the 'Panch Shila' are—China, Indonesia, Burma, India, Nepal, Laos, Cambodia, Democratic Republic of Viet Nam and Yugoslavia. The five principles of Panch Shila are (1) mutual respect for one another's territorial integrity and soverignty, (2) non-aggression, (3) non-interference in one another's internal affairs, for any reasons of an economic, political or ideological character, (4) equality and mutual benefit and (5) peaceful co-existence. These principles also formed the basis of joint declaration made by India and U.S.S.R. on June 22, 1953 and also by Poland on June 27, 1955.

Parole— An oath taken by a prisoner of war that, if released, he will not try to escape, nor during a war bear arms against his captors.

Partisan—A member of a guerilla band working behind enemy lines and engaged in such activities as sabotage, demolition, and diversionary attacks.

Point of Order—A question raised by a member of a legislative body as propriety of a motion or proceeding under the rules. The presiding officer is required to rule on it immediately as his ruling is subject to appeal to the floor.

Power Politics—(1) the policy of maintaining and expanding national power for power's sake, (2) the sum total of international relations in a world consisting of sovereign states whose existence depends on power, (3) by a more narrow definition, the use of threats and force for the achievement of political objects in international relations without consideration of right and justice.

Protectorate—A territory not formally annexed, but in respect of which, by treaty grant, usage, sufferance and other lawful means, the other state has power and jurisdiction.

Purge—Expulsion, possibly killing of unreliable, unruly, disobedient or merely inconvenient members of a party.

Putsch—German word meaning "attempt to take by force", specially power, control of state.

Prize Court—This is a court of law set up in time of war to decide whether a ship and its cargo captured by the navy is a lawful prize or not. If it is decided that a captured ship is enemy property or a cargo is contraband, they are sold and the proceeds are distributed to all members of the navy at the end of the war.

Privy Purse—In England allowance from civil list for personal use of the Sovereign.

Prohibition—Government action which prohibits by law the manufacture and sale of intoxicating liquors except for medical or sacramental use.

Plural Voting—System allowing a person to cast more than one vote in the same election. The voter is eligible to vote in more than one constituency by virtue of its special position, *i.e.*, a city and a university vote by the same person.

Pacifism—Opposition to war or military force in any form. Pacifists believe that all international disputes should be settled by arbitration. The various movements towards world peace are not necessarily wholly pacifistic, as they often advocate defensive war and oppose only aggressive war.

Provincial Autonomy—The system (specially in Indian Constitution) under which States enjoy complete autonomy as far as the States subjects are concerned and have concurrent jurisdiction with the Centre on subject of common interest.

Proportional Representation—is the method used in an election by which the votes are so counted that each party has representation in the elective body in proportion to its strength, so as to ensure the representation of minorities.

Plebiscite—An expression of the will of the whole people, sought in ratification or disapproval of a particular measure, already decided but regarding which their elected representatives hesitate to act. It comes from the Latin *plebs*, the common people.

Protectorate—A territory, not formally annexed, but over which, by grant, treaty, sufferance or usage and other lawful means another State has power or jurisdiction, *e.g.,* Zanzibar.

Protocol—The rough-draft of a diplomatic document on which diplomatic transactions tentatively commenced.

Privileges, Parliamentary—"The sum of peculiar rights enjoyed by each House collectively as a constituent part of the High Court of Parliament, and by members of each House individually, without which they could not discharge their functions and which exceed those possessed by other bodies or individuals."—*Erskine May.*

Pourparler—An informal preliminary conference of representatives of different groups, functions or countries looking to a formal agreement settling disputed questions between the parties.

Police State—A totalitarian state having repressive government control of radio, press, culture, and economic and political life.

Pogrom—A Russian word for 'devastation', a term for mass raids on Jewish Quarters in Tsarist Russia; killing, looting and arson were practised. They were later introduced into Germany by Nazis.

Public Relations—The activities of a corporation, government, or other organisation in building and maintaining good relations with the general public or with special groups.

Public Utilities—Electric light, gas, telephone, street car and other services of use to all members of the community.

Proletariate—The wage-earning class of a community collectively *i.e.*, property-less class dependent on sale of labour. In Marxism, the Proletariate is opposed to the bourgeoisie, the employing class, and will eventually overthrow it.

Politbureau—Short for political bureau, the leading body of communist parties. The communist party of Soviet Union has a Politbureau which is regarded by many as real government of Russia. Every communist party in whatever country has a Politbureau.

Quislings—Local traitors, names after the Norwegian traitor, Major Quisling, who betrayed his country to the Germans ; specially those who quietly prepared the way for Germany in her neighbouring countries.

Radical—Persons of political views quite different from those held by the majority of persons who, in politics, are in favour of sweeping reforms or other changes in government or laws.

Racketeer—One who levies blackmail on industry by threats of interference.

'Reds'—Slang term for revolutionaries, specially communists, derived from Red Flag, the traditional symbol of revolt.

Republic—State in which the sovereign power resides in the electorate, which is the body of the people having a voice in electing representatives to rule them. There is no hereditary sovereign to rule.

Residuary Powers—In Federal Constitution where the powers are divided between the federal centre and the federating States or units under a system of three lists—federal, state or provincial and concurrent. Powers relating to new spheres of administration not covered by either of the three lists are known as residuary powers.

Reprisal—A retaliatory punishment inflicted by one country upon another for an alleged illegal act.

Right and Left—In the legislative bodies, it is the fixed habit of the conservative groups and parties to seat themselves on the right hand side of the Speaker or President and of the liberal or radical element to seat themselves on the left. The term 'centre' is used for middle parties or groups.

Regent—One who rules on behalf of a sovereign. When a sovereign is a minor, or is insane, or in any other way incapable of ruling, it is usual to appoint a regent to act for him.

Referendum—Bringing a proposed law before the people as a whole for decision.

Reciprocity—Exchange of commercial privilege. It is usually experienced when two nations make tariff concessions to each other.

Sabotage—At first this word was confined in its meaning to malicious waste or destruction of an employer's property by workmen, as a means of enforcing demands in labour disputes. Now it is being applied more broadly, to define any malicious crippling or destruction of property especially as practised by foreign secret agents or sympathisers for the purpose of damaging military equipment.

Sanctions—Coercive measures taken to ensure fulfilment of international treaty obligations. Sanctions were provided in the covenant of the League of Nations against countries resorting to war in defiance of the Covenant. U.N. Charter also provides for sanctions though it does not use the word 'sanctions'.

Satellite—A state or country politically and economically dominated by a more powerful neighbouring one.

Secret Session—For the discussion of important questions, Parliament sometimes sits in secret when all withdraws from the house except the members.

Sphere of Influence—A region normally undeveloped, politically under the determinative power of a foreign nation.

Splinter Group—In politics, a group broken away from a larger, original organisation.

Soviet-Council—a great local governing body in the U.S.S.R. composed of peasants, soldiers and workers, which sends deputies to the higher congress.

Straw vote—Unofficial polling of public opinion.

Suzerainty—A state that exercises political control over another state in relation to which he is sovereign.

Syndicalism—A socialist movement aiming at trade union socialism instead of State Socialism.

Scorched Earth—A wartime policy of destroying all resources when defending forces have to withdraw before the invader.

Self-determination—The principle that every distinct people or nation ought to have the right to determine the question of its independence, its form of government and its political destiny.

Tammany Hall—A name given to the Democratic Party's organisation in New York city, which sprang from Tammany Society of 1805. One of the famous political machines of American history—very influential in New York city and State politics, also in the Democratic party on a national scale.

Third Force—A term originating in the post-World War II in France, where it was applied to the Socialists and M.R.P. intermediate between the communists and the right-wing supporters of De Gaulle. It has been applied elsewhere to policies intermediate between Communism and Fascism and other right-wing forces. It is applied also to a group of States—W. Europe which would be sufficiently strong and influential to reconcile the U.S.A. and U.S.S.R. by co-operating with both.

Totalitarian—A believer in the complete centralization of government control under the political group and suppression of other parties.

Total War—denotes the present form of war in which the distinction between combatants and non-combatants are fast disappearing.

Theocracy—A state governed by God or priests.

Trotskyism—The views of Trotsky on socialism, revolution and the development of Soviet Union and the movement propagating these ideas. After the overthrow of Trotsky in 1925-27, a number of communists supporting his opposition to Stalin formed revolutionary communist parties which in 1936 established Fourth International which held conferences in Paris in 1936 and 1948. They are left-wing communists, more radical and revolutionary than Stalinists, the official communists with whom they are in conflict. These Trotskites have appeared in various countries as 'Revolutionary Communist Party,' 'Revolutionary Socialist Party, etc.

Trust Territory—A territory administered by a State appointed by and responsible to, the United Nations after the 2nd World War.

Trusteeship—Administration by a member of the United Nations of an area not yet ready for self-government.

Unilateral action—Action taken by one party to an agreement without consulting the other parties in international affairs.

Ultimatum—Final statement of demands, rejection of which is assumed to lead at once to breaking-off friendly relations and to war.

Underground—Organised, secret opposition to the government or force in power.

V. E. Day—Victory in Europe, May 8th, 1945, the day of the official end of the European phase of the World War II.

V. J. Day—Victory in Japan, August 14, 1945, the day making the end of the war in Japan.

Warmonger—People who desire wor and support war-like policy.

Whigs—Old name for English liberals, no longer in use. It was the description of liberal party in English Parliament after 1680.

Veto—The term is most used to-day with reference to the United Nations but its history dates from Roman times. *'Veto'* is Latin for "I forbid it"; it was the word used by the Roman magistrate when invoking the law against some action. In many modern States the King or President has the power of vetoing measures passed by the legislature. In the United Nations, only the five permanent members out of the eleven members of the Security Council have the power of veto, which prevents a decision being taken even if every other member is in favour of it.

Welfare State—A state that, by its concern with public health, insurance against sickness and unemployment and similar measures, assumes a large share of responsibility for the welfare of its citizens.

Wishful Thinking—signifies optimism not always founded on reality.

Whip—A member of a political party assigned to the task of rounding up members of that party to ensure their votes and to hold them in line with the party policy.

Writ—A document directed to some public officer or private person commanding him to do a certain act therein specified.

PLANS, POLICIES, TREATIES, ALLIANCES, COUNCILS, CHARTERS, CONFERENCES, ETC.

Anzus Treaty—was signed on Sept. 1, 1951, under which members acknowledge that an attack in the Pacific against any will involve all, and agree to "act to meet the common danger." Members are : U.S. New Zealand and Australia.

Atlantic Charter—A joint declaration was made by Roosevelt-Churchill on August 14, 1941, stating (1) no aggrandisement, territorial or other. (2) No territorial changes without expressed wish of the people concerned. (3) Right of all people to choose the form of their own government. (4) Restoration of sovereign rights and self-government to those who have been forcibly deprived of them. (5) Access on equal terms to trade and to raw materials of the world. (6) Fullest collaboration between all nations in economic field. (7) Final peace of the whole world after destruction of Nazi tyranny.

Arab League—The Arab States formed a Union by a pact signed in Cairo March 22, 1945 for the purpose of maintaining Arab solidarity. The League consists of Egypt, Iraq, Jordan, Saudi Arabia, Syria, Lebanon, Yemen and Libya. Provision was made for admission of the Arab portion of Palestine upon achievement of independence. The League's Council approved customs and payments agreements, on Sept. 7, 1958.

Arab Security Pact—This is known as Arab League Collective Security and Economic Co-operation Pact concluded on July 17, 1950. The pact has been ratified by Egypt, Iraq, Syria, Jordan and Lebanon. This treaty links the signatory States into military, political and economic alliance, pledging resistance to armed attack and reaffirming their obligations under Arab League and U.N. charters.

Bagdad Pact—A treaty in which five nations joined in November, 1955, to set up the middle East Treaty Organisation.

Benelux—This is the combination of three countries—Belgium, Luxemburg and the Netherlands which have established a complete Customs Union among themselves. No longer are there any tariff barriers between these three countries. All three are now together called Benelux. The Benelux has been an influential example of closer economic co-operation for recovery of Europe.

Bandung Conference—The meeting of the Representatives of 30 African and Asian nations held at Bandung, Indonesia, April 18-24, 1955. The aim was to promote economic and cultural co-operation and to oppose colonialism. This was more or less achieved in an atmosphere of cordiality.

Brussels Pact—The pact was signed in March 1948 by Britain, France and the Benelux countries. It is a military defence pact and also equally an economic co-operation pact. It pledges all five countries to cease from bilateral injury to one another and to enlarge their commercial exhanges.

It was designed "to fortify and preserve the principles of democracy, personal freedom and political liberty, the rule of law and constitutional traditions."

Colombo Plan—This plan began from July 1, 1951. It was a six-year plan of economic aid to South and South-East Asia agreed on at the British-sponsored Conference at Colombo in January 1950 by Great Britain, Australia, Canada, Ceylon, India, New Zealand, Pakistan. Later Malaya, Singapore, North Borneo, Sarawak promised co-operation. Burma and Indonesia sent observers to meetings of Consultive Committee in London. The Project will raise £1,868 million, help by governments, raised by bank loans, contributions, etc., to support mills, power plants, railways, irrigation, other capital goods, thus combating poverty and communism. United States is not a participant, but will consult on Point Four Funds in Asia. The International Bank of Reconstruction and Development will co-operate. Britain will contribute £100,000,000, Canada and Australia each voted £25,000,000 for the first year.

Cominform—The Cominform (Communist Information Bureau) was set up at a secret meeting in Poland of communist delegates from nine European nations on Oct. 5, 1947. It was the successor body to the Comintern (Communist International) which was dissolved in 1943. The original Cominform linked the Communist Party of Russia with those of the East European States and those of France and Italy, the two West European countries with the biggest Communist Party membership.

Commonwealth of Nations—is a free association of ten sovereign independent states, the United Kingdom, Canada, Australia, New Zealand, South Africa, India, Pakistan, Ceylon, Ghana and Malaya Federation. The members are bound together by the community of ideals and interest. All the members owe common allegiance to the Queen of England as the Head of the Commonwealth and is the symbol of their free association in the Commonwealth, except India and Pakistan where Presidents are the Heads of the State. These countries, India and Pakistan, do not give allegiance to the Queen but recognise the Queen as Symbol of their free association as Members of the Commonwealth and as such the Head of the Commonwealth.

Commonwealth Parliamentary Association—was founded in 1911. The aim of the Association is "to promote understanding and co-operation for common purposes between those engaged in parliamentary government of the countries of the -Commonwealth by the establishment of machinery for the exchange of information and individual visits and for the organisation of conferences between members of the legislatures of the Commonwealth and also to promote understanding and co-operation by similar means between those members and the members of legislatures outside the Comonwealth having close political and parliamentary associations with them."

Council of Europe—An institution of consultive character founded on May 5, 1949 in London. It consists of a Committee of Ministers (composed of Foreign Ministers of member countries) and a consultive assembly (delegations from several parliaments), the former providing means of co-operation between governments, the latter a means through which the aspiration of the European peoples may be formulated and expressed. Every member government has to "accept the principles of the rule of law and of the enjoyment by all persons within its jurisdiction of human rights and fundamental freedoms.

The member countries are—Belgium, Denmark, France, Greece, Ireland, Italy, Luxemburgh, Netherlands, Norway, Sweden, Turkey, United Kingdom, Iceland and German Federal Republic (*Associate Member*).

Dumbarton Oaks Conference—A meeting of the representatives of U.S.A., Great Britain, Russia and China held at estate known as Dumbarton Oaks in Washington, recommending on Oct. 9, 1944 the creation of the United Nations, an international security organisation.

Eastern Military Alliance—It is the military organisation of Communist States in Europe to offset North Atlantic Treaty Organisation (NATO), the Western Military Alliance.

Eisenhower Doctrine—A new political doctrine enunciated in 1951 by the U.S. President Eisenhower. The main features of the doctrine are as follows—(1) It is bilateral. It extends the U.S. offer of protection to individual Mid-east nations, but only at their request; it does not require organisation of the whole region to be effective. (2) Although it is designed principally to preserve the vast stretches of Arab territory from communism, it also applies to the Arabs' sworn enemy, Israel without taking sides. (3) It is informal; neither any nation nor the U.S. has to sign a new pact. (4) It is exclusively American and non-colonial. The U.S. is no longer coupled rigidly or identified in the middle-East with Britain and France—and yet the doctrine in no way excludes them but, in fact, helps to preserve a Western influence behind which the British and French may rebuild.

European Defence Community (EDC)—The treaty founding European Defence Community was signed in Paris on May 27, 1952 by France, West Germany, Italy, Belgium, Netherlands and Luxemburg. Four supplementary agreements were signed: a protocol to the NATO treaty extending guarantees of the NATO to EDC, a reciprocal pact in which the EDC pledged the same guarantees to the NATO, a treaty between the 6 EDC members and Britain committing the 7 nations mutually to resist aggression against any one of the group and a declaration by Britain, France and the U.S. that they would regard any threat against EDC as a threat to their own security and that they would maintain forces in Western Europe to defend the North Atlantic area.

European Coal and Steel Community (ECSC)—Limited economic federation of France, West Germany, Belgium, Netherlands, Luxemburg and Italy. It is sometimes called Schuman Plan, in the name of the French Foreign Minister who proposed it in 1950. The 50-year treaty creating the ECSC became effective in 1952 and established unified market for the member countries—coal and steel products. Restrictions on exports, imports and currency exchange affecting such products were gradually lifted and a unified labour market was created.

Gatt—Th General Agreement on Tariffs and Trade is one of the most important of all institutions concerned with international trade. It was formed by 23 countries which met in Geneva in the middle of 1947 to discuss how to remove discrimination and unfair practices in international trade. The result was an agreement on certain principles which are together known as the General Agreements on Tariff and

Trade. One of them is that concessions given by a country to any one country in the trade in any commodity, should be given to all the other countries signing the agreement who wish to trade in that commodity. Another principle is that goods imported from other countries should enjoy the same taxation and transportation privileges as similar goods produced within the country. A third principle is that no country should enter into unfair competition by adopting what is known as the practice of "dumping goods".

Genocide Convention—was adopted by U.N. on Dec. 9, 1948. The word genocide was coined by Prof. R. Lamkin of Poland to mean the deliberate extermination of any human group on racial, religious or linguistic grounds. The convention binds its signatories to prevent and punish the crime of genocide.

Four Freedoms—President Roosevelt in his address to the Congress of Jan 6, 1941 defined four essential human freedoms—(1) Freedom of speech and expression, (2) Freedom of every person to worship God in his own way, (3) Freedom from want, (4) Freedom from fear. The programme was, substantially, incorporated in the Atlantic Charter (Aug. 1947).

Fourteen Points—Woodrow Wilson's basis offered, Jan. 8, 1918, in a message to American Congress for an equitable and enduring peace in settlement of World War I.

International Red Cross—Two international organisations are known respectively as International Committee of the Red Cross and the League of Red Cross Societies, both with headquarters in Geneva and Switzerland. The first of these is a wholly international agency unconnected with any national society which attempts to maintain the basic Red Cross principle of the Geneva convention; the second agency is a federation of autonomous national Red Cross Societies designed to further co-operation among them.

Japanese Peace Treaty—was signed at San Francisco on Sept. 8, 1951 by 49 nations. The State of War between Japan and the Allies was terminated. Japan's full sovereignty was recognised and its right to apply the U.N. membership. Japan recognised the independence of Korea, renounced all rights to Formosa, Pescadores, Kuriles, Sakhalin, the Pacific islands formerly under mandate to Japan, the Antarctic area, Spartly Island and the Paracels; Japan agrees to U N. Trusteeship over Kyukyu and Daito Islands, the Bonius and Rosario Islands, the Voicano Islands, Parece Vela and Marcus Island.

League of Nations—An organisation of many nations formed in January, 1920 for the promotion of international peace and co-operation; dissolved in April, 1946.

Marshall Plan—Also known as Organisation for European Economic Co-operation. On June 5, 1947, the U.S. Secretary of State, Marshall made a speech in the Harvard University in which he outlined the seriousness of the shortage of dollars for the economic situation of Europe and suggested American assistance in the economic recovery on the understanding that the European countries reached some agreement about their requirements and the part they themselves would take in giving proper effect to the action of U.S.

A conference of sixteen nations of Europe willing to work the Marshall Plan began in Paris on July 12, 1947 and formulated an economic programme which aimed at restoring European economy by the end of 1950 by (*a*) a strong production programme by each participant, (*b*) creation and maintenance of internal financial stability, (*c*) maximum mutual help between the participating countries and (*d*) a solution of the problem of the European trading deficit with the American countries. The report calculated the deficit for the 16 countries and their dependent territories at $22,440 million over 4-year period.

Munich Agreement—Signed by Germany, Great Britain, France and Italy on September 29, 1938 at Munich. It provided for the cession to Germany of the Sudetan-German districts of Czechoslovakia ; the new frontiers were guaranteed by all the signatories. The agreement was violated in March, 1939 by Hitler seizing what was left of the country.

Mutual Security Programme—The plan of all economic aids by U.S.A. is contained in the *Mutual Security Act* of 1951 which sanctions millions of dollars for military, economic and technical assistance to free nations. A large part of mutual security funds are allocated for defence. The remaining funds are used to develop manufacturing facilities, to provide technical training and to ensure economic stability.

North Atlantic Treaty Organisation (NATO)—is an association of nations of North Africa and Western Europe. It is established by a treaty (North Atlantic Pact) signed in 1949 by United States, Canada, Iceland, United Kingdom, France, Belgium, Luxembourg, Netherlands, Norway, Denmark, West Germany, Greece, Turkey, Italy and Portugal. They joined NATO to prepare for a possible armed attack of the Soviet Union and other Communist countries. NATO countries agreed to unite their military strength for collective defence and for preservation of peace and security in the North Atlantic area. The Council of NATO is its planning and organising body. A European army to consist of fifty or more divisions were established. Supreme Headquarters of Allied Powers in European (SHAPE) was established in France.

Organisation of American States (OAS)—This organisation was chartered in 1948 for co-operation and mutual repsect among American States.

Philadelphia Charter—was adopted by the International Labour Organisation at the Philadelphia Conference on May 10, 1944. It declares : that labour is not a commodity ; that freedom of expression and of association are essential to sustained progress ; that poverty anywhere constitutes a danger to prosperity everywhere ; and that war against want requires to be carried out with unrelenting vigour within each nation.

Point Four—In Jan. 20, 1949 President Truman outlined four major courses of action for American foreign policy. The fourth point from which the programme took its name, called upon the peoples of the United States "to help the free peoples of the world through their own efforts to produce more food, more clothing, more materials for housing and more mechanical power to lighten their burdens. . . . It must be a wide world effort for achievement of peace, plenty and freedom." Point Four is meant to make the scientific and technical knowledge of America available to free nations for their agricultural and industrial development. On Sept. 1950 funds became available for a Technical Co-operation Programme.

Pan-American Union—An international body created by the 21 American republics for the fostering of mutual understanding and co-operation, with essential duty of making effective the resolutions adopted by the successive Pan-American Conferences. A general conference of the member Republics is held quinquennially known as *Pan-American Conference*. The Union is financed by its 21 members on the basis of population.

Rio Treaty—A treaty signed in August 1947, under which the signatory nations pledge themselves, in the event of aggression against any one of them, to provide assistance to that nation on request. Members are: United States, Cuba, Honduras, Mexico, Guatimala, El Salvador, Nicaragua, Haiti, Dominician Rep. Costa Rica, Panama, Venezuela, Ecuador, Colombia, Peru, Bolivia, Paraguay, Brazil, Chile, Argentina and Uruguay.

SEATO.—*South-East Asia Treaty Organisation* was signed in Manila on Sept. 8, 1954 by Australia, New Zealand, Pakistan, Philippines, France, Thailand, United Kingdom and United States covering the "general area of South-east Asia" to strengthen defence in S. E. Asia and to develop economic measures for social well-being. In case of aggression, its members are to "consult immediately in order to agree to measures which should be taken for common defence."

Tripartite Security Treaty—This is between U.S.A., Australia and New Zealand, signed on Sept. 8, 1951 (1) to settle by peaceful means any international disputes, (2) parties will consult together wherever the territorial integrety, political independence or security of any party is threatened in the Pacific.

UNICEF :—is a popular abbreviation for United Nations International Children's Emergency Fund. Established in 1946 and administered directly by U. N. Secretariat. UNICEF is the world's largest voluntary international effort to improve the health and welfare of children and mothers.

Versailles, Treaty of—the peace treaty ending the war of 1914-18 concluded between the Allies and Associated Powers and Germany on June 29, 1919. It imposed terms on Germany in regard to the occupation of Rhineland territory for a period of years, the surrender of Alsace-Lorraine to France and parts of East Prussia to Poland, the handing over to the Allies of Germany's colonial possessions. An important feature of this treaty was the establishment of League of Nations.

Warsaw Pact—Mutual defence treaty signed by the several communist countries—U.S.S.R., Bulgaria, Albania, Czechoslovakia, Poland, Rumania and Hungary on 14th May, 1955 at Warsaw. The alliance was made necessary by the remilitarization of West Germany

under Paris Pacts of 1954, the treaty is binding for 20 years but provides for its lapse as soon as an East-West collective security should come into force. A unified military Command was also set up.

Western European Union (W.E.U.)—Seven nations formally organised the Western European Union in 1955. Great Britain, France, Belgium, Italy, Luxemburgh, Netherlands and Western Germany ratified a treaty to establish the new defensive coalition.

United Nations Technical Assistance Administration (UNTTA)—was set in 1950 to direct provision to governments which request it, technical assistance in the fields of economic development, social welfare and public administration. Important activities of UNTTA include the provision of experts in the various specialised fields, awards of fellowships and study or training grants in fields related to economic or social developments ; and the organisation of regional seminars and training centres in specialised fields.

CONSTITUTION OF INDIA

Sovereign Democratic Republic—Indian Constitution resolves to establish a sovereign democratic republic. The country is absolutely republic independent in its internal and external affairs. India being a democratic republic, the real fountain head of all powers is the people. This sovereignty is vested in the people of the country.

The aim of the Constitution is to secure for all its citizens—

Justice, social, economic and political ;

Liberty of thought, expression, belief, faith and worship ;

Equality of status and of opportunity ; and to promote among them all

Fraternity, assuring the dignity of the individual and the unity of the Nation.

Territory and Extent—There are in India fourteen States, each with a Governor as its head, such as Andhra Pradesh, Assam, West Bengal, Bihar, Bombay, Madhya Pradesh, Madras, Orissa, Punjab, Uttar Pradesh, Kerala, Rajasthan, Mysore, Jammu & Kashmir.

There are six territories, such as Himachal Pradesh, Delhi, Manipur, Tripura, Andaman & Nicobar Islands and Laccadive, Amindivi and Minicoy Islands and such other territories as may be acquired.

Fundamental Rights—The Constitution of India makes a declaration of some fundamental rights which it guarantees against violation by the State.

The Constitution contains rights which are declared fundamental and justiciable. These fundamental rights have been classified under the following heads :

1. Right to equality.
2. Right of freedom.
3. Right against exploitation.
4. Right to freedom of religion.
5. Cultural and educational rights.
6. Right to property.
7. Right to constitutional remedies.

Right to Equality—Discrimination against any citizen on grounds of religion, race, caste, sex or place of birth is prohibited. In public employment, Constitution assures equality to opportunity for all. It has established social equality by abolition of title, local and foreign.

Right to Constitutional Remedies—The Constitution guarantees the right to every citizen to move the Supreme Court for enforcement of all fundamental rights. And for that purpose the Supreme Court is given general powers to safeguard these rights as well as the power to propose particular remedies, such as *habeas corpus*, *mandamus*, etc.

Rights to Freedom—Guarantees (*a*) Freedom of speech and expression, (b) to assemble peacefully and without arms, (c) to form associations or unions, (*d*) to move freely throughout India, (*e*) to reside and settle in any part of India, (*f*) to acquire, hold and dispose of properties, (g) to practise any profession, trade or business.

Religious Freedom—Subject only to public order, morality, health and some other essential provisions, all persons are equally entitled to freedom of conscience and the right to profess, practise and propagate religion freely.

Cultural and Educational Rights—The Constitution provides for the protection of the interests of linguistic, cultural and religious minorities and their right to establish and administer their own educational institutions.

Rights against exploitation—Traffic in human beings is declared punishable offence. So too is *begar* (forced labour) except without payment or any form of forced labour except compulsory service for the State for public purpose.

Rights to Property—No person shall be unlawfully deprived of his property, movable or immovable.

Directive Principles—The Indian Constitution also includes a set of directives enjoining the state to undertake within its means, a number of welfare measures. These are intended to assure citizens an adequate means of livelihood, raise the standard of living, improve public health, provide free and compulsory education for children, and assure that the operation of the economic system does not result in the concentration of wealth and means of production to the detriment of the common good.

UNION EXECUTIVE—*President*—The Executive at the centre consists of the President and a Council of Ministers. The President is the executive head of the Indian Republic. All the executive powers of the Union including the Supreme command of the Defence Forces is formally vested in the President and all executive actions are taken in his name. He is elected by an electoral college consisting of the elected members of both Houses of Parliament and Legislative Assemblies of the States, by the system of proportional representation by single transferable vote.

The qualifications of the office of the President—(1) He should be a citizen of India; (2) must have completed the age of 35 years; and (3) qualified for election as a member of the House of the People.

He will not be eligible for election if he holds a job in Government, giving him financial rewards.

Term of office—The President holds office for five years and is eligible for re-election.

Salary and Allowance—The President draws a salary of Rs. 10,000 and usual allowance.

Impeachment—The President may be removed from office by impeachment for any violation of the constitution.

Vice-President—is the ex-officio Chairman of the Council of States (Rajya Sabha). Any citizen of India aged thirty-five years and above and qualified for the membership of the Council of States can be elected to this office by both the Houses of Parliament at a joint sitting on the basis of proportional representation by single transferable vote. His term of office is five years. When the President is ill, if he resigns or dies or is removed or is for any reason absent, his place will be taken by the Vice-President, till a new President is elected.

Council of Ministers—The Constitution provides for a *Council of Ministers.* The actual executive authority is discharged by the Prime Minister and the Council of Ministers appointed by him, all of whom are collectively responsible to the House of the People, the lower chamber of the Parliament. The Council of Ministers hold office during the pleasure of the President.

LEGISLATURE—*Parliament*—The Legislature of the Indian Union consists of the President and two Houses—(1) *Lok Sabha* (House of the People), (2) *Rajya Sabha* (Council of States).

The Lok Sabha—consists of not more than 500 members and not more than 20 members to represent the Union Territories chosen in such manner as Parliament by law provides. The members are directly elected by the voters in the several states. Every adult or grown-up citizen of India is given the right to vote. The normal life of the House is five years. The minimum age for membership is 25 years for the Lower House. The House of the People elects a Speaker and a Deputy Speaker from amongst its members.

Rajya Sabha—consists of not more than 250 members of whom 12 are nominated by the President. The nominated members should be men of learning and wide experience, such as artists, writers, scientists and social workers. The Council of States is not subject to dissolution, a third of its members retiring after every two years. The elections to the Council are indirect, the alloted quotas of the representatives of each State being elected by the elected members of the Legislative Assembly of that State in accordance with the system of proportional representation by means of the single transferable vote. The Vice-President of India is the ex-officio Chairman of the Council of States.

Powers and Privileges of the Parliament—The constitution confers certain powers and privileges on members of the Houses of Parliament. No member of parliament "shall be liable to any proceedings in any court in respect of anything said or any vote given by him in parliament or any committee thereof, and no person shall be so

liable in respect of the publication by or under the authority of either house of parliament of any report, paper, votes or proceedings. The powers, privileges and immunities of member of each house of parliament shall be such as may from time to time be defined by parliament by laws and until so defined, shall be those of the House of Commons of the Parliament of the United Kingdom, and of its members and committees."

The difference between the House of the People and the Council of States is as follows :—

The difference is not merely in their size. The powers given to them are not the same. The function of both is to legislate but the greater part of this responsibility will be borne by the Lower House. A bill has to be passed by both the Houses before it becomes law. In case of a disagreement between the two Houses, a joint session of the two Houses is summoned to resolve the dead-lock. The opinion of the Lower House will ultimately prevail owing to its numerical majority. But it is to be noted here that the procedure regarding dead-lock relates only to Bills other than money bills, for, as regards *money bills* the provision of the constitution is that sole power shall belong to the Lower House. Money Bills cannot be introduced in the Council of States. They must, as a rule, originate in the House of the People.

JUDICIARY—*Supreme Court of India.*—The Supreme Court of India consists of Chief Justice and not more than ten other judges appointed by the President. Judges hold office until they attain the age of 65 years.

The Supreme Court decides dispute between the Government of India and any State or States or between two or more States involving any question of law or fact. Civil and Criminal appeals of a certain kind from High Courts will also be heard by it. The Supreme Court is also competent to order the enforcement of Fundamental Rights. It has also Advisory Jurisdiction by which the President can refer to it any question of public importance. The law declared by it is binding on all courts of the country.

STATE GOVERNMENTS—States Reorganisation Act of 1955 and Bihar and West Bengal Transfer of Territories Act, 1955 abolish the distinction of States as A, B and C as envisaged in the Indian Constitution. There are now two classes of administrative divisions—(1) 14 States and (2) six Territories. The 14 States are Andhra Pradesh, Assam, Bihar, Bombay, Jummu & Kashmir, Kerala, Madhya Pradesh, Madras, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal. The six Territories, all of which are centrally-administered, are as follows—Andaman & Nicobar Islands, Delhi, Himachal Pradesh, Laccadive, Amindivi and Minicoy Islands, Manipore and Tripura. The full-fledged States enjoy the same democratic administration as the former Part A States.

States—There is a *Governor* for each State in whom all executive powers are vested. He is appointed by the President and holds office during his pleasure. Any citizen of India who has completed 35 years of age is eligible for the appointment as

Governor. Governor holds office for a term of five years unless he resigns earlier. Besides official residence, the Governor draws a salary of Rs. 5,500 per month and other allowances and privileges.

The Governor will be assisted by a *Council of Ministers* with Chief Minister at the head of the Council to aid and advise the Governor. The Chief Minister is appointed by the Governor and the other Ministers are also appointed by him on the advice of the Chief Minister. Ministers hold office during the pleasure of the Governor. The Council of Ministers is collectively responsible to the Legislative Assembly of the State.

Every State has a *legislature*. Some States have two chambers, while others have only one chamber. Where there are two chambers, one is known as the Legislative Council and the other as the Legislative Assembly and where there is only one House, it is known as Legislative Assembly. Those with two Houses are Bombay, Bihar, Madras, Punjab, Uttar Pradesh and West Bengal. In all the States the Lower House is called Legislative Assembly and the Upper House is known as Legislative Council.

Legislative Assembly of each State is elected by direct election on the basis of adult franchise. The total of the Assembly members shall in no case be more than 500 or less than 60. Its normal life is five years. Some seats may be reserved for Scheduled Tribes and Scheduled Castes. The Governor may also nominate the representative of Anglo-Indian community.

The total number of members of the *Legislative Council* of a State is not to exceed one-third of the total members in the Legislative Assembly, but in no case shall be less than 40. This is a permanent body; one-third of its members retires every second year. Half of its members are elected from local bodies, from among the graduates of three years standing and teachers who have worked at least three years. A third of the members are elected by the Legislative Assembly from among non-members and the rest are nominated by the Governor from among men of eminence in literature, art, science or social service.

Territories—Union Territories have no popular administration and even Delhi, Himachal Pradesh and Tripura which had a Legislature and ministry of their own, have none under the new set-up (Reorganisation of States Act, 1956). The Territories are governed row through an administrator each, with whom some non-official elements are associated. Parliament is the sole legislating authority for these Territories, while additionally the President has power of making regulations in respect of Andamans and Laccadives. Advisory Councils have been set up in Delhi, Himachal Pradesh and Manipur with elected members of the Parliament from these areas to advise the Union Home Minister in the matter of legislation to be placed before the Parliament, on the budget to be framed in respect of them.

States Judiciary—The Constitution envisages a High Court for each State. The High Court consists of a Chief Justice and such other judges as the President may from time to time deem it necessary to appoint. The judges of a High Court are appointed by the President of India in consultation with the Chief Justice of India and the Governor of the State and in case of an appointment of a Judge other than Chief Justice, the Chief Justice of the High Court concerned. They hold office until they attain the age of 60 years and are removable from office in the same manner as a judge of the Supreme Court.

Relation between Union and the States—Parliament can legislate for the whole or any part of the territory of India and the Legislature of a State for whole or any part of the State. No law, however, made by the Parliament can be considered invalid on the ground of extra-territorial jurisdiction. For the purposes of distributing legislative powers between the Centre and the States, three comprehensive lists have been drawn up. These lists are (1) *Union List*, (2) *Concurrent List*, (3) *State List*.

The Parliament has "executive power" to make laws in regard to the matters mentioned in the first list, *i.e.*, *Union List*. The *Concurrent List* means that matters shared between Union and the States, such as criminal law, civil procedure, preventive detention, marriage and divorce, transfer of property other than agricultural lands, contracts, bankruptcy, etc.

There are 66 items in the "*State List*." Some of them are police, administration of justice, prisons, local government, public health and sanitation, forests, fisheries, etc. The legislature of a State has "exclusive powers" to make laws in matters mentioned in this list.

Jurisdiction over all other matters not mentioned in the Concurrent and State Lists will belong to the Parliament. This means that the Union will acquire *residuary powers*.

As regards *Administrative Relations*, the executive powers of every State shall be so exercised as to ensure compliance with the laws made by the Parliament and any existing laws which apply in that State, and the executive power of the Union shall extend to the giving of such direction to the State as may appear to be necessary for that purpose.

Union executive is empowered to give direction to a State regarding construction and maintenance of the means of communication declared to be of national or military importance. Parliament can declare certain highways or waterways to be national highways or waterways. Union executive can also construct and maintain means of communication required in connection with naval military and air force works. The President may with the consent of the Government of the State entrust to that Government functions in relation to any matter to which the executive power of the Union exists

There is provision for the formation of an *Inter-State Council* to investigate and discuss subjects in which States have common interest and inquire into and advise upon disputes which may have arisen between the States.

There are also *Emergency provisions* in case of grave crisis created by war or internal disturbances in which President can give direction to the constituent States as to how their authority to be exercised. President can suspend from operation several articles of the Constitution. During such period, Union Parliament has power to legislate with respect of any of the matters enumerated in the State List.

Election Commission—The superintendence, direction and control of elections to Parliament and Legislature of every State and of President and Vice-President including appointment of an election tribunal shall vest in an *Election Commission* to be appointed by the President. The Chief Election Commissioner enjoys conditions of tenure and service similar to those of a judge of the Supreme Court.

There shall be only one general electoral role for every territorial constituency and no person will be ineligible for inclusion in such role on grounds only of religion, race, caste, sex or any of them.

There is no property qualifications of the voters. Every person who is a citizen of India and who is not less than twenty one years of age and who is not otherwise disqualified, is entitled to vote at the elections of the House of the People and the Legislative Assemblies of States.

Special provisions for certain classes—Seats shall be reserved in the House of the People for (*a*) Scheduled Castes, (*b*) Scheduled Tribes.

If Anglo-Indian community is not adequately represented in the House of People, President may nominate not more than two members of that community.

Seats shall be reserved for Scheduled Castes and Scheduled Tribes in the Legislative Assemblies of the States. Anglo-Indians are to be nominated by the Governor or Rajpramukh of a State, if not adequately represented

The reservation of seats and special representation shall cease after ten years from the commencement of this Constitution.

Financial and other provisions—There is a provision in the Constitution for setting up of a *Finance Commission* to make recommendations to the President as to the distribution between the Centre and the Units of the net proceeds of certain taxes (like the income-tax, excise duties, some export duties, etc.,) and the allocation between the States of such proceeds.

The Central and State Governments are required to set up respectively the *Consolidated Fund of India* and the *Consolidated Fund of the States* respectively. All revenues received by the Government of India and the Government of a State are to be credited into their respective consolidated funds. No money is to be appropriated from the Consolidated Fund of India or of a State except in accordance with an Appropriation Act passed by Parliament or the Legislature of the State concerned. Provision has also been made for the establishment of a *Contingency Fund* of India and a Contingency Fund for each State to meet unforeseen expenditure, pending proper authorisation by the appropriate legislature.

Authority of Audit—As for auditing the funds, the Constitution provides for the appointment of a *Comptroller and Auditor-General of India* by the President to keep watch on the finances and accounts of the Union. It is his responsibility to see that the expenses voted by the Parliament or the legislature of a State and laid down in the Appropriation Fund are not exceeded or varied.

Trade and Commerce—The Constitution provides the broad principles of freedom of trade, commerce and intercourse throughout the territory of India. Union Parliament and the State Legislatures are, however, authorised to prescribe limitations when there is scarcity of any particular commodity or for any other consideration of national or public interest. But no Legislature, whether Parliament or a State Legislature, has power to make a law giving any preference to one state over another or discriminating between different States in respect of items relating to trade and commerce in the lists of the 7th Schedule. Only certain Part B States are exempted from this provision for a period of ten years.

Official Language—Hindi in Devnagri script shall be the official language of the Union and the form of numerals for official use shall be the international form of Indian numerals. The English language shall continue for all official purposes of the Union for a period of 15 years from the commencement of the Constitution. The President is authorised to constitute, after the expiration of five years from the commencement of the Constitution and thereafter at the expiration of ten years from such commencement, a special commission to examine the growth and development of Hindi and make recommendations as to its progressive use for all or any of the official purposes of the Union with a view to replacing English completely at the end of the stipulated period.

The Constitution recognised the use of Assamese, Bengali, Gujerati, Hindi, Karnataka, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telegu and Urdu, any one or more of which may be used as the regional languages of the Union.

Amendment of the Constitution—Article 368 provides for the amendment of the Constitution. The Constitution shall stand amended when the President gives assent to any bill for the purpose after it is passed in each House of Parliament by a majority of not less than two thirds of the members of the House present and voting. The only provision for the amendment of which ratification by the legislatures of not less than one-half of the States has also been prescribed, relates to the Supreme Court and High Courts, the distribution of legislative powers between the Centre and the States, the representation of the States in Parliament and the procedure for amendment of the Constitution.

AMENDMENTS TO THE INDIAN CONSTITUTION

Since the inauguration of the Constitution on January 26, 1950, the following amending enactments have been passed—

1. **Constitution (First Amendment) Act, 1951**—The first amendment to the Indian Constitution was made by the Constitution (First Amendment) Act, 1951. By this, besides making minor changes in

Articles 15, 19, 85, 87, 174, 176, 341, 342, 372, and 375, it added two new Articles 31A and 31B and a 9th Schedule.

By an amendment to clause (2) of Article 19, it has permitted reasonable restrictions to be imposed by law on the exercise of the right of freedom of speech and expression in the interest of friendly relations with foreign States or public order or on the ground of incitement of an offence. An amendment of clause (6) of Article 19 has, however, removed from the scope of judicial review, or grounds of reasonableness, restrictions imposed on the right of citizens to carry on any trade, business, industry or service where such restrictions have been imposed with a view to enabling the State to undertake any scheme of nationalisation.

To Article 15, sub-clause (4) was inserted stating that the State can make special provision for the advancement of any socially and educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes.

Two new Articles, 31-A and 31-B, were inserted. Article 31-A provides that no law providing for the acquisition by the State of any estate or of any rights therein or for the extinguishment or modification of any such rights shall be deemed to be void on the ground that it is inconsistent with, or takes away or abridges any of the rights conferred by any provisions of this Part (III).

To preserve the Zamindary Abolition Acts by various States in India, Article 31-B provides that none of the Acts and Regulations specified in the Ninth Schedule nor any of the provisions thereof shall be deemed to be void, or even to have become void, on the ground that such Act, Regulation or provision is inconsistent with, or takes away or abridges any of the rights conferred by, any provisions of Part III, and notwithstanding any judgment, decree or order of any court or tribunal to the contrary, each of the said Acts and Regulations shall continue in force.

2. Constitution (Second Amendment) Act, 1952 :—It sought to amend Article 81 with a view to readjusting the scale of representation in the House of the People necessitated by the completion of 1951 census.

Art. 81 relates to the composition of the House of the People. Sub-Clause (b) states that there shall be not less than one member for every 750,000 of the population and not more than one member for every 500,000 of the population. But on account of increase in the number of population in the census of 1951, some adjustment in the ratio of representation was necessary. Accordingly, the words—"not less than one member for every 750,000 of the population and"—were omitted. The result is that the upper limit of representation is abolished and there shall be not more than one member for every 500,000 of the population.

3. Constitution (Third Amendment) Act, 1954 :—Under Article 369, Parliament had power to legislate in respect of certain essential commodities upto January 1955. As it was considered essential that Centre's control over some of these commodities should continue, the Constitution (Third Amendment) Act, 1953 amplified the scope of entry 33 of List III in the Seventh Schedule.

It included four classes of commodities, namely, foodstuffs, cattle fodder, raw cotton and raw jute. Imported goods of the type produced by the centralised industries were also placed in that entry. This will enable the Centre to exercise full control over the development of such industries.

4. **Constitution (Fourth Amendment) Act, 1955.**—This Legislation was intended to meet objections raised by courts on questions relating to the acquisition of private property. This Fourth Amendment amended Articles 31, 31A, 305 and added few more entries to the Ninth Schedule. The amendment to Article 31 (2) that the State can compulsorily acquire private property for a public purpose and that the scale of compensation prescribed by the authorising legislation should not be called in question in a Court of Law. Article 31A was amended so as to exclude temporary taking over of a property by the State either in public interest or to secure its better management from the compensation clause. The amendment to Article 305 was in the nature of a saving clause for laws providing for State monopolies. Seven new entries were also added to the Ninth Schedule.

5. **Constitution (Fifth Amendment) Act, 1955** :—Under the proviso to Article 3 of the Constitution, it was provided that any bill for the purpose of forming a new State or altering the area, boundaries or name of any State could not be introduced in Parliament unless the views of the Legislatures of the States concerned had been ascertained by the President. This amendment has amended the said proviso so as to authorise the President to prescribe a time limit for the State legislatures to communicate their views in the matter and to enable the Bill to be introduced after the expiry of the time limit so prescribed.

Constitution (Sixth Amendment) Act, 1956—The sixth amendment came into force on and from 11th September, 1956. The sixth amendment amends the Seventh Schedule by providing a new entry 92A (after entry 92) in the Union List. The entry 92A reads as follows : "Taxes on the sale or purchase of goods other than newspapers, where such sale or purchase takes place in the course of inter-State trade or commerce "

It also amends entry 54 of the State List as follows : "54. Taxes on the sale or purchase of goods other than newspapers, subject to the provisions of entry 92A of List I."

It also amends Article 286 of the Constitution. The *Explanation* in clause (1) has been omitted. For clause (2) and (3) the following clauses have been substituted :

"(2) Parliament may by law formulate principles for determining when a sale or purchase of goods takes place in any of the ways mentioned in clause (1).

(3) Any law of a State, in so far as it imposes, or authorises the imposition of a tax on the sale or purchase of goods declared by Parliament by law to be of special importance in inter-State trade or commerce, be subject to such restrictions and conditions in regard to the system of levy, rates and other incidents of the tax as Parliament may by law specify."

By virtue of this amendment, the Central Government shall levy and collect taxes on the sale or purchase of goods other than newspapers, where such sale or purchase takes place in the course of inter-State trade or commerce. Parliament may by law formulate principles for determining when a sale or purchase of goods takes place in the course of inter State trade or commerce. The proceeds of such taxes shall be distributed among the States in whose territories the tax will be levied and collected

Constitution (Seventh Amendment) Act, 1956—This Act came into force from 1st November, 1956 It was passed for the reorganisation of the States It involved not only the establishment of new States and alterations in State boundaries but also the abolition of the three categories of the States and the classification of certain areas as Union Territories. This led to the amendment of Article I and the First Schedule of the Constitution Among the other important Articles which were affected by this amendment were Article 80 (Composition of the Council of States) along with the Fourth Schedule dealing with the allocation of seats in the Council of States 1 Articles 81 and 82 which have been revised and simplified , (It is now provided that each state shall be allotted seats in the House of the People in such a way that the ratio between the number of such seats and the population of the State is, so far as practicable, the same for all the States It has also been laid down that the ratio between the population of each constituency and the number of seats allotted to it in a State should, as far as possible be uniform throughout the State). Article 131 on the original jurisdiction of the Supreme Court, Article 168 providing for bicameral legislatures in certain States , and Articles 216, 217, 220, 222, 224 dealing with the High Courts. Two new Articles 350 A and 350 B were added with a view to implementing the recommendations of the States Reorganisation Commission regarding Constitutional safeguards for linguistic minorities.

SCHEDULE

First Schedule (Articles 1 and 4)—*1. States*—Andhra Pradesh, Assam, Bihar, Bombay, Karala, Madhya Pradesh, Madras, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh, West Bengal, Jammu & Kashmir.

2 Union Territories—Delhi, Himachal Pradesh, Manipur, Tripura, Andaman & Nicobar Islands, Laccadive, Minicoy and Amindivi Islands.

Second Schedule (*Part A*)—Provisions as to the President and the Governors of States.

—(*Part B*)—Omitted by the Constitution (Seventh Amendment) Act, 1956

—(*Part C*)—Provisions as to the Speaker and Deputy Speaker of the House of the People and the Chairman and the Deputy Chairman of the Council of States and the Speaker and Deputy Speaker of the Legislative Assembly and the Chairman and the Deputy Chairman of the Legislative Council of a State.

—(*Part D*)—Provisions as to the Judges of the Supreme Court and of the High Court.

—(*Part E*)—**Provisions as to the Comptroller and Auditor-General of India.**

Third Schedule—Forms of Oaths or Affirmations.

Fourth Schedule—Allocation of Seats in the Council of States—Andhra Pradesh 18, Assam 7, Bihar 22, Bombay 27, Kerala 9, Madhaya Pradesh 16, Madras 17, Mysore 12, Orissa 10, Punjab 11, Rajasthan 10, West Bengal 16, Jammu & Kashmir 4, Delhi 3, Himachal Pradesh 2, Manipur 1, Tripura 1=220.

Fifth Schedule—Provisions as to the administration and control of Scheduled Areas and Scheduled Tribes.

Sixth Schedule—Provisions as to the administration of Tribal areas in Assam.

Seventh Schedule—List 1—Union List ; List II.—State List ; List III—Concurrent List.

Eighth Schedule—Languages : Assamese, Bengali, Gujrati, Hindi, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telegu, Urdu.

Ninth Schedule—(Article 31B)—Bihar Land Reforms Act 1950, Bombay Tenancy and Agricultural Lands Acts 1948. Bombay Maleki Tenure Abolition Act 1949, etc. etc.

INDIAN CITIZENSHIP

At present citizenship law is determined by the Indian Citizenship Act 51 of 1955. The Act provides five methods for the acquisition of Indian citizenship. These are : by birth, by descent, by registration, by naturalisation and by incorporation of territory. The Act also provides for the termination of citizenship.

By Birth : Every person born in India on or after the 26th January, 1950, shall be a citizen of India by birth. Children born in India to foreign diplomats and enemy aliens, however, shall not acquire Indian citizenship by birth.

By Descent : A person born outside India on or after the 26th January, 1950, shall be a citizen of India by descent if his father is a citizen of India at the time of his birth. But if the father of such a person was a citizen of India by descent only, that person shall not be a citizen of India by descent, unless his father is registered at an Indian consulate within one year of its occurrence, or, his father is at the time of his birth, in service under a Government of India.

By Registration : Citizenship can be acquired by registration on application to the Government of India by any person who is not already such citizen by virture of the Constitution or by virtue of any other provisions of this Act. He must belong to any of the following categories .—(a) persons of Indian origin who are ordinarily resident in India and have been so resident for six months immediately before making an application for registration ; (b) persons of Indian origin who are ordinarily resident in any country or place outside undivided India; (c) women who are, or have been, married to citizens of India; (d) minor children of persons who are citizens of India; and (e) persons of full age and capacity who are citizens of a Commonwealth country.

Commonwealth countries include United Kingdom, Canada, Australia, New Zealand, Union of South Africa, Pakistan, Ceylon and the Federation of Rhodesia and Nyasaland. The Republic of Ireland is also placed on the same footing. For the purpose of registration, a person shall be deemed to be Indian origin if he, or either of his parents, or any of his grand-parents, was born in undivided India. A person of full age must take an oath of allegiance before he is registered as a citizen of India.

By Naturalisation—A person of full age and capacity not being a citizen of a Commonwealth country, may be naturalised as an Indian citizen provided he makes an application in the prescribed manner to that effect. The qualifications for naturalisation of a person who is not a citizen of a country in the Commonwealth are:—

(a) that he is not a subject or citizen of any country where citizens of India are prevented by law or practice of that country from becoming subjects or citizens of that country by naturalisation;

(b) that if he is a citizen of any country, he has renounced the citizenship of that country in accordance with the law therein in force in that behalf and has notified such renunciation to the Central Government;

(c) that he has either resided in India or been in the service of a Government in India or partly the one and partly the other, throughout the period of twelve months immediately preceding the date of the application;

(d) that during the seven years immediately preceding the said period of twelve months, he has either resided in India or been in the service of a Government in India or partly the one and partly the other, for periods amounting in the aggregate to not less than four years;

(e) that he is of good character;

(f) that he has an adequate knowledge of a language specified in the Eighth Schedule to the Constitution; and

(g) that in the event of a certificate of naturalisation being granted to him, he intends to reside in India or to enter into or continue in, service under a Government in India or under an international organisation of which India is a member or under a society, company or body of persons established in India.

Provided that, if in the opinion of the Central Government, the applicant is a person who has rendered distinguished service to the cause of science, philosophy, art, literature, world peace or human progress generally, it may waive all or any of the conditions specified above.

By Incorporation of Territory—If any territory becomes a part of India, the Central Government may specify the persons who shall be citizens of India by reason of their connection with that territory; and those persons shall be citizens of India as from the date to be specified in the order.

TERMINATION OF CITIZENSHIP—Indian citizenship can be terminated by renunciation or termination or deprivation. Any citizen of India of full age and capacity can terminate his Indian citizenship by making a declaration to that effect, except during a time of war. Any citizen of India who has been naturalised in a foreign country shall cease to be an Indian citizen. The Government of India can also deprive a naturalised citizen of his citizenship on ground of disloyalty to the State of India or continued absence from the country for a period of seven years.

OUR NATIONAL EMBLEMS & AWARDS

NATIONAL FLAG

The *first flag* in India was hoisted on August 7, 1906 in the Parsee Bagan Square, Calcutta. The flag was composed of horizontal stripes of red, yellow and green.

The *second* flag was hoisted by Madame Cama and her band of exiled revolutionaries in Paris in 1907. It was similar to the first flag with slight modifications.

The *third flag* was hoisted during Home Rule Movement in 1917 by Dr. Annie Besant and Tilak. This flag had five red and four green horizontal stripes and in the left hand top corner (the pole end) was the Union Jack occupying one-fourth of the space and seven stars in the centre. There was also a crescent and a star in one corner.

The *Tricolour* was first born at A.I.C.C. meeting at Bezwada in 1921 when a flag was shown by an Andhra youth and improved by Mahatma Gandhi with the addition of a white stripe and charka. Though not officially accepted by the Congress, it was hoisted on all Congress occasions. In 1931, when A.I.C.C. met at Karachi, a resolution was passed stressing the need for a national flag. In the same year a resolution was passed adopting a tricolour flag as our National Emblem. It had three colours: saffron for courage and sacrifice, white for truth and peace, green for faith and chivalry. It also carried a charka in blue on white band. The size was three lengths by two breadths. On July 22, 1947 with the attainment of independence, the Constituent Assembly adopted it as free India's national flag. The colours and their significance remain the same. The *Dharma Chakra* of Emperor Asoka was adopted instead of Charka.

The National Flag of India consists of a horizontal tricolour in the saffron (*Kesari*) at the top, white in the middle and dark green at the bottom, all stripes being equal in breadth. The ratio of the width of the Flag to its length is two to three. The emblem of the flag is an exact reproduction of the wheel on the capital of the Asoka pillar at Saranath, superimposed on the central band and is as broad as the white stripe. The colour of the emblem is dark blue and the wheel has 24 spikes.

Use of National Flag—

(1) It should not be dipped to any person or anything. The regimental colour, the State Flag, the organisational or institutional flag will be used for this purpose when necessary.

(2) No other flag or emblem should be placed above the National Flag or to its right.

(3) All flags are placed to the left of the National Flag if they hang in a line, and if they are raised, then the National Flag is raised highest.

(4) When other flags are flown along with the National Flag on the same halyard, the latter should be at the peak.

(5) The Flag should not be carried flat or horizontally, but always aloft and free.

(6) When carried in a procession, it must be borne high on the right shoulder of the standard-bearer and carried in front of the procession.

(7) When the Flag is displayed from a staff, projecting horizontally or at an angle from a window sill or a balcony or the front of a building, the saffron end should be at the top.

(8) Normally the National Flag should be flown on important Government buildings at the Centre and in the States. Frontier areas may, however, fly the National Flag at some special points.

(9) The use of the Flag will, however, be unrestricted on certain special occasions, such as the Independence Day, Mahatma Gandhi's birthday and during the National week and on any other days of national rejoicing.

NATIONAL EMBLEM

The National Emblem is replica of the capital of the Asokan pillar at Saranath and is formed of three lions mounted on an abecus with *Dharma Chakra* carved in relief in the centre, a bull on the right and a horse on the left, and the outlines of the *Dharma Chakra* on the extreme right and left. The words *Satyameva Jayate*, meaning 'truth alone triumphs', are inscribed in Devanagri script below the emblem. The lion capital was adopted as National Emblem on January 26, 1950.

The fact that the original lion capital designed between 242—232 B.C. was created by Emperor Asoka to hallow the spot where the Buddha first initiated his disciples in the eight-fold path of salvation, invests the Emblem with historical and spiritual significance. Carved out of a single block of sandstone, the original capital was surmounted by a wheel (Chakra).

NATIONAL SONGS

The Constituent Assembly of India on the 24th January, 1950 adopted Rabindranath Tagore's song *Jana-gana-mana* as the national anthem of India. It was concurrently decided that Bankim Chandra Chatterjee's *Bande Mataram* shall have equal status.

The Orchestral, Choral and Military Band versions of the National Anthem *Jana Gana Mana* have been standarised. The Government of India have emphasised that the general public should use the authorised versions of the Anthem, both on public and private occasions.

AWARDS & DISTINCTIONS & TITLES

Bharat Ratna—The award is made for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order. The decoration takes the form of a *peepal leaf*. It is of toned bronze. On the obverse side is embossed a replica of the Sun, below which the words *Bharat Ratna* are embossed in Hindi. On the reverse are the State Emblem and the motto, also in Hindi. The Emblem, the Sun and the rim are of platinum.

Padma Vibhusan—The award is made for exceptional and distinguished service in any field, including service rendered by Government servants.

Padma Bhusan—The Award is made for distinguished service of a high order in any field, including service rendered by Government servants.

Padma Shri—The Award is made for distinguished service in any field, including service rendered by Government servants.

President's Police & Fire Service Medal, Police Medal.

Krishi Pandits—The title 'Krishi Pandit' is given annually by the Indian Council of Agricultural Research to farmers who have made notable contribution to the cause of Indian agriculture.

Gopal Ratna—This title has been instituted in 1956 by the Government of India and will be awarded to the owners of the highest milk-yielding cows and buffaloes of certain breeds in all India milk-yield competition. Owners of each breed of cattle besides title of Gopal Ratna will get cash prizes of Rs. 2,000 each.

HONOUR AND AWARDS FOR ARMED FORCES

Gallantry in the Face of the Enemy—1 *Param Vir Chakra* is the highest decoration for valour which is awarded for " most conspicuous bravery or some daring or pre-eminent act of valour or self-sacrifice *in the presence of the enemy*, whether on land, at sea, or in the air This decoration is made of bronze and is circular in shape. It has, on the reverse, four replicas of 'India's Vajra' embossed round the State emblem in the centre On the reverse, the words "Param Vir Chakra" are embossed both in Hindi and English, with lotus flowers in the middle. The decoration is worn on the left crest with a plain purple coloured riband, an inch and quarter in width.

2. *Mahavir Chakra* is the second highest decoration and is awarded for acts of conspicuous gallantry in the presence of the

enemy whether on land, at sea, or in the air. It is made of standard silver and is circular in shape.

3. *Vir Chakra* is third in the order of awards given for acts of gallantry in the presence of the enemy, whether on land, at sea and in the air. The decoration is made of standard silver and is circular in shape.

Officers and all other ranks of the Army, Navy and Air Force, the Reserve Forces, the Territorial Army, the militia and any other lawfully constituted Armed Forces, matrons, sisters, nurses and staff of the Nursing and other Services pertaining to Military Hospitals and Civilians of either sex serving regularly or temporarily under the direction or supervision of any of the above-named forces are eligible for any of the three awards.

A recipient of any of these decorations is entitled to special pension.

For gallantry other than in the Face of the Enemy—1. *Ashoke Chakra Class I*—This medal is awarded for the most conspicuous bravery or some daring or pre-eminent act of valour or self-sacrifice on land, at sea or in the air. The Chakra is made of gilt gold and is circular in shape.

2. *Ashok Chakra, Class II*—is awarded for conspicuous gallantry. It is made of standard silver and is circular in shape.

3. *Ashoke Chakra, Class III*—is awarded for an act of gallantry. It is exactly like two Ashoke Chakras except that it is made of bronze.

Officers and all other ranks of the Army, Navy and Air Force, the Reserve Forces, the Territorial Army, the Militia and any other lawfully constituted forces, as also members of the Nursing services of the Armed Forces and Civilian citizens of either sex in all walks of life are eligible for the award of Asoka Chakra, classes 1, 2, 3.

4. *Mentioned in Despatches*—In recognition of distinguished and meritorious service in operational areas and acts of gallantry of an order not sufficiently high to warrant the grant of gallantry awards, a system of Mentioned in Despatches was instituted with effect from August 15, 1947. Those who are 'mentioned in despatches' are entitled to have an emblem—a miniature leaf.

Campaign Medals—1. *General Service Medal* awarded for services rendered under active service conditions after August 15, 1947. An individual qualifying for it for the first time is awarded the medal together with a clasp indicating the particular operation for which award has been made.

2. *Clasps*—So far two clasps have been instituted. The *Jammu and Kashmir Clasp* was awarded for operations in Jammu & Kashmir between October 1947 and January 1949

3 The *Overseas Clasp* was intended for service overseas. The first issue has been made to those service personnel who saw operational service in Korea between 1950-53.

Medals for Meritorious Service and Long Service and Good Conduct—(1) There are two classes of medals—*Meritorious Service Medal* is awarded on a Service-wise allotment of vacancies at the rate of one per 900 men of the authorised strength. (2) Long Service

Medal and good conduct medal is awarded on a Service-wise allotment of vacancies at the rate of two per 900 men.

Decorations to Territorial Army Personnel—1. *Territorial Army Decoration* is awarded to Commissioned Officers of the Territorial Army with 20 years' meritorious service.

2. *Territorial Army Medal* is awarded to Junior Commissioned Officers, Non-Commissioned Officers and the men of the Territorial Army who have completed 12 years' efficient service.

RANK & PRECEDENCE OF PERSONS

1. President.
2. Vice-President.
3. Prime Minister.
4. Governors and Sadar-i-Riyasat, Jammu & Kashmir, within their respective charges.
5. Ex-Presidents and ex-Governors General.
6. Lieutenant Governors within their respective charges.
7. Chief Justice. Speaker of the Lok Sabha.
8. Cabinet Ministers of the Union
9. Holders of Bharat Ratna Decorations.
10. Ambassadors Extraordinary & Plenipotentiary accredited to India.

    High Commissioners of Commonwealth Governments in India.
11. Rulers of Indian States with a salute of 17 guns and above within their States.
12. Governors and Sadar-i-Riyasat, Jammu & Kashmir, outside their respective charges.
13. Lieutenant Governors outside their respective charges.
14. Rulers of Indian States with a salute of 17 guns and above outside their States.
15. Chief Ministers of States
16. Ministers of the Union (other than Cabinet Ministers).

    Members of the Planning Commission.
17. Rulers of Indian States with a salute of 15 guns or 13 guns.
18. Envoys Extraordinary and Ministers Plenipotentiary accredited to India
19. Judges of the Supreme Court.
20. Visiting Class I Ambassadors of India.

    Foreign Ambassadors visiting India.

    Visiting High Commissioners of India and High Commissioners of other Commonwealth countries visiting India.
21. Charges d' Affaires and acting High Commissioners *a pied* and *ad interim*
22. Chiefs of Staff and Commanders-in-Chief holding the rank of full General or equivalent rank.
23. Chief Justices of High Courts.

    Chairmen of Legislative Councils in States.

    Speakers of Legislative Assemblies in States.

Rank & Precedence of Persons—(*Concld.*)

24. Ministers of States.

Deputy Ministers of the Union.

Attorney-General.

Comptroller and Auditor General.

Deputy Chairman of the Rajya Sabha.

Deputy Speaker of the Lok Sabha.

25. Chiefs of Staff and Commanders-in-Chief holding the rank of Lieutenant-General or equivalent rank.

26. Rulers of Indian States with a salute of 11 guns or 9 guns.

27. Chairman, Union Public Service Commission.

Chief Election Commissioner.

28. Puisne Judges of High Courts.

29. Deputy Ministers of States.

Deputy Chairmen and Deputy Speakers of State Legislatures.

Speakers of State Legislatures.

Chief Commissioners of Union territories within their respective charges.

30. Members of Parliament.

31. Officers of the rank of full General or equivalent rank.

Secretary to the President.

Secretaries to the Government of India and Principal Private Secretary to the Prime Minister.

Visiting Class II and Class III Ambassadors of India.

Commissioner for Scheduled Castes and Scheduled Tribes.

Officiating Chiefs of Staff and Commander-in-Chief holding the rank of Major-General or equivalent rank.

Visiting Ministers Plenipotentiary of India and Foreign Ministers Plenipotentiary visiting India.

Chairman of the Railway Board.

Financial Commissioner for Railways.

Solicitor-General.

Political Officer in Sikkim.

32. Members of the Railway Board.

Ministers of Foreign and Commonwealth missions other than Ministers Plenipotentiary.

Officers of the rank of Lieutenant-General or equivalent rank.

33. Additional Secretaries to the Government of India.

Chairman, Tariff Commission.

Chairman, Central Water and Power Commission.

Vice-Chairman of the Indian Council of Agricultural Research.

Financial Adviser, Ministry of Finance (Defence).

Chairman, Central Board of Revenue.

*P.S.Os. of the Armed Forces of the rank of Major-General or equivalent rank.

34. Chairman of the Public Service Commission of a State.

Chief Secretaries to the States.

Financial Commissioners.

Members of the Union Public Service Commission.

Rear Admiral Commanding, Indian Naval Squadron.

Members of a Board of Revenue.

35. Director-General, Health Services.

Director-General, Posts and Telegraphs.

Director, Intelligence Bureau.

General Managers of Railways.

---

* Should a P S O hold the rank of Lieutenant-General, his seniority in the Table of Precedence will continue to remain the same as laid down for Officers of the rank of Lieutenant-General or equivalent rank in Article 32 of the Table.

Rank & Precedence of Persons—(*Concld.*)

Establishment Officer to the Government of India.

Joint Secretaries to the Government of India (including Jt. Secretary to the Cabinet).

Visiting Class IV Ambassadors of India.

Officers of the rank of Major-General or equivalent rank.

Surveyor General.

Members of the Tariff Commission.

Inspectors General of Police in States.

Commissioners of Divisions.

Director-General of Civil Aviation.

Director-General of Supplies and Disposals.

Director-General of Ordnance Factories.

Indian Navy Commodores-in-Charge, Naval Ports or Areas.

Commanders of Indian Air Force Commands of the rank of Air Commodore.

*P.S Os. of Naval and Air Headquarters of the ranks of Commodore and Air Commodore.

Chief Commissioners of Union Territories outside their respective charges.

Director-General, All India Radio

Military Secretary to the President (so long as he also holds the post of Director-General, Government Hospitality Organisation).

Councillors of foreign and Commonwealth missions in India.

Deputy Comptroller and Auditor-General.

TRANSPORT & COMMUNICATIONS

1. RAILWAYS

TRANSPORT AND COMMUNICATIONS—Transport deals with Railways, Roads, Road Transport, Inland Waterways, Shipping, Tourist Traffic and Civil aviation, yhilst Communications deal with Postal Services Telephones, Overseas Communications.

RAILWAYS IN INDIA—India has an extensive railway network, reaching all major cities. With over 34,744 route mileage, the system is exceeded in mileage only in the United States and Canada. Most of the railways are owned and operated by the Central Government. Those which are still privately owned are narrow-gauge feeder lines, are subject to Government regulation, and are usually dependent upon Government assistance. The Government lines have in recent years been reorganised into seven major systems.

Indian railway system is the largest in Asia and it is the single biggest nationalised undertaking in the country. In inter-regional traffic, 80 per cent of the goods and 70 per cent of the passenger traffic are carried by rail. The Capital-at-charge exceeds Rs. 1,078 crores and gross earnings Rs. 350.6 crores. The railways employ over 10 lakhs of people. Daily, the Indian railways carry about 38 lakh passengers or the equivalent of one per cent of the country's population. For their convenience, they operate over 4,200 passenger trains daily, serving nearly 6,500 railway stations.

BEGINNING OF RAILAYS IN INDIA—The regular railway projects in India date from 1844. The first line to be opened was a small section of 22 miles by the G.I.P. Railway between Bombay and Kalyan in April 1853. The E. I. Railway line between Calcutta and Pandooa was the second to follow in August 1854 and Mardas had the line upto Arkonam opened in July 1856.

Terms for Opening Railways—In the early stage (between 1844 and 1868) the construction of railways in India was entrusted to British Companies under State guarantee of a minimum return of 4½ p.c. to 5 p.c. on the capital invested. Government provided the land free of cost but retained the right to purchase the lines after 25 or 50 years on certain terms.

This policy, however, entailed heavy loss to the State, amounting by 1869 to about 1.7 crores and after an unsuccessful attempt to enlist the co-operation of companies without any guarantee of return, Government adopted the policy of direct ownership, construction and management by the State. Between 1869 and 1879 about 2,175 miles of lines were so constructed.

The policy of direct State construction, however, did not bear fruit as expected, specially because the exigencies of time necessitated the diversion of capital resources of the State to other directions and political and strategic considerations had led to the spending of large sums on unproductive lines. But the Famine Commission appointed in 1878 strongly urged the early extension of the railway network. Company construction was thereafter revived, and even for State-owned lines management by companies was favoured.

In dealing with the guaranteed companies, the Government exercised as far as found desirable their rights to terminate the contracts as and when opportunities arose in subsequent years : the method of making use of this right and the manner of continuing management of the railways after State acquisition having differed in different cases.

New Era Begins—With the beginning of the 20th century a new era began. Traffic had grown enormously and the railways had ceased to be a burden on public exchequer. In 1901, Mr. Robertson, a Special Commissioner appointed to enquire into the working of the railways, advocated the discontinuance of the dual system of State and Company management and advised the leasing out of all lines to companies, with or without guarantee. Public opinion in India had, however, ceased to remain inarticulate and strong feelings were entertained against management by English Companies, which often acted against the best interests of the people and stood in the way of Indianisation and advancement of Indian trade and industry. The policy, however, continued upto 1920-21.

In 1921 a Railway Enquiry Committee under the Chairmanship of Sir William Acworth examined critically the question of State *vs.* Company management and advocated State-management.

In 1923 the Indian Legislative Assembly adopted a resolution advocating State management only and it was decided to eliminate the system of management by Board of Directors in London. Accordingly, the East Indian Railway was taken over under direct State management in January 1925 and the G. I. P. Railway in July next year and since then all company-managed lines have been taken over. After independence in 1947, the railway system has been nationalised. It is now entirely managed by the State.

CO-ORDINATION OF TRANSPORT SERVICES—In order to ensure a wellplanned development of Transport and co-ordination between various modes of transport on the one hand and the Central and State Transport policies on the other, Government of India have decided to set up three new transport bodies. They are *Transport Development Council, Road and Inland Water Transport Advisory Committee* and the *Central Transport Co-ordination Committee.* These bodies have replaced Transport Advisory Council constituted in 1935, Central Board of Transport and the Standing Committee of the Central Board of Transport.

Transport Development Council is a high level body to advise the Government of India on all matters of policy relating to roads, road transport as well as inland water transport. The Council will also advise on problems relating to co-ordination between different forms of transport that may be referred to it by the Government of India.

Road & Inland Water Transport—A Committee will be set up to discuss problems relating to roads, road transport and to make recommendations to the Transport Development Council for final decisions.

Central Transport Co-odination Committee—is constituted in place of the Standing Committee of the Central Board of Transport and will deal with the day to day transport problems, confronting the different ministries of the Government of India.

RAILWAY COMMITTEES—For the improvement of railway management and also to settle the State *vs.* Company management question, *Acworth Committee* was appointed in 1921 which made various recommendations for the improvement of Indian Railways. Its main recommendations were: (1) Railways to be managed by the State instead of Company management. (2) Railway Budget should be separated from the general budget and that the general revenues should receive annual contributions from railways. (3) Establishment of Rates Tribunal to adjudicate upon disputes between railways and the public.

The Acworth Committee laid the foundations of State management and State Control of Indian Railways. Its recommendations constituted the broad basis on which the railway system in India developed in subsequent years.

The *Pope Committee* was appointed in 1932 which *inter alia* made many recommendations in regard to the intensive use of locomotives, coaching stock and machinery, disposal of uneconomical wagons, combining resources between railways, ticketless travel and methods of increasing earnings.

The *Wedgwood Committee* in 1936 made the following recommendations: (1) reduction in locomotives and carriage under repairs, (2) amalgamation of workshop for construction of rolling stock, (3) acceleration of trains, (4) withdrawal of unremunerative services, (5) greater caution in capital expenditure, (6) a campaign to root out dishonesty and incivility from amongst railway staff, (7) development of the commercial departments of railways, (8) building of a General Reserve Fund to serve as an equalisation fund for payment of interest charges and amortisation of capital.

Indian Railway Enquiry Committee—The Committee appointed by the Government of India published its report in 1948. The main findings and recommendations are (*a*) the staff strength in the railways is on the high side while there has been general deterioration in the efficiency of workers, (*b*) in place of present central organisation under which the Railway Board is part of the Secretariat of the Government of India, the Committee recommended the vesting of control and management of Indian Government Railways in a Statutory Authority, (*c*) it is desirable to have in the Finance Branch of the Railway Board a separate unit primarily concerned with exploring means to improve earnings, (*d*) no capital outlay should be incurred other than on strictly financial considerations, except when a capital expenditure is justified on other important considerations, (*e*) an Amortisation Fund should be created (as recommended by the Wedgwood Committee) in respect of intangible assets of the railways amounting to about Rs. 68 crores, the annual contribution to the fund being one per cent of gross earnings, (*f*) the existing method of making *ad hoc* contribution to the General Revenues has to continue until the future position of the railways can be assured with greater precision.

Railway Stores Enquiry Committee—was set up under the Chairmanship of A. D. Shroff to examine the Stores arrangements on the railways with a view to bringing about improvement and rationalisation in procurement, issue and holding of stores in 1951. The Committee recommended that Ministry of Railways should be responsible for the procurement of specialized Railway Stores. This recommendation has been accepted. The procurement of specialised railway stores will be transferred to the Railway Board.

ADMINISTRATION OF RAILWAYS—The Railways are under the direct charge of the Minister of Railways who is responsible for the proper management and running the system throughout the country. The Minister is assisted by two Deputy Ministers and a board of management called the Railway Board with a Chairman and three Members. The Railway Board is the supreme authority in regard to the day to day administration of the railways. The Board enunciates policies and issues instructions for the execution of the same.

There are three members, *viz.*, *the member for engineering*, *the member for transportation* and the *member for staff members*. There is also a *Financial Commissioner* who looks after the financial side of the business. There are, in addition, certain Additional members to assist the Board in carrying out the programmes in connection with (1) Works, (2) Mechanical, (3) Commercial, (4) Financial and (5) Staff Matters.

Divisional System—The essence of the divisional system is to provide a unified control of operation and other allied railway activities over a longer area than that of an average district and to vest the responsibility for co-ordinating the working of different departments in the area in an administrative officer called the Divisional Superintendent, located in the Division. Divisional system of administration has been introduced in the Central, Southern and Western Railways. The *Central Railway* is divided into seven divisions with headquarters at Secunderabad, Bombay, Bhusaval, Nagpur, Sholapur, Jabalpur and Jhansi. *Southern Railway* is divided into eight divisions :—Bezawada, Hubli, Guntakal, Olavakkot, Madras, Madurai, Mysore and Tiruchirapalli. *Western Railway* is divided into eight divisions with headquarters at Bombay, Baroda, Kotah, Jaipur, Ajmer, Rajkot, Bhavnagar and Ratlam.

Each Division is under a Divisional Superintendent who will function in his sphere more or less as the General Manager does for the entire Zonal railway. He will, however, be under the control of the General Manager. Specialised departments, like stores and workshops, are excluded from the divisional scheme. These will continue to be controlled by headquarters direct as hitherto.

RAILWAY FINANCE—In 1924, the railway finance was separated from the general finance with the object of relieving the general budget from violent fluctuations, thus enabling the railways to carry on a continuous policy. Under the Convention, railway revenues had to pay to general revenues a contribution on the capital-at-charge and working results of commercial lines plus a share of the surplus profits. These arrangements were subject to periodic revision. The Convention was reviewed in 1943, when the contribution to general revenues onwards was decided on an *ad hoc* basis. The Convention was further reviewed in 1949 and in 1954, when it was settled—

(a) The existing relationship between general revenues and railway finance was altered to give the former the status of the sole shareholder in the railway undertaking and general finances were granted a fixed dividend of 4 per cent on the loan capital invested in the undertaking as computed annually. From April 1, 1955, on the element of over-capitalization, the dividend to the general revenues was decided at the rate equivalent to the average rate charged to other commercial departments and on the capital-at-charge of new lines, at the aforesaid rate. During the period of construction and up to the end of their opening for traffic, the deferred amount being repaid from the sixth year onwards in addition to the current dividend out of the net income of the new lines.

(*b*) The contribution of the Depreciation Reserve Fund was fixed at a minimum of Rs 15 crores a year for the quinquennium, commencing from April 1, 1950. This was raised to Rs. 35 crores from April 1, 1955.

(*c*) A Development Fund was instituted (merging in it the Betterment Fund) for expenditure on passenger amenities, labour welfare works and unremunerative projects. The scope of the Fund was expanded from April 1, 1955 to include expenditure on the provision of amenities for users of rail, transport and quarters of Class III staff ; but the expenditure on the construction of new lines was excluded from the scope of the Fund. The general finance is to advance funds for the purpose of expenditure from the Development Fund in the shape of temporary loans, not to pay interest at the average borrowing rate. This amount is repayable in instalments, if necessary, from accretions to the Fund in more prosperous years.

FARE AND FREIGHT—The fare & freight rates were rationalised in 1948. The rates of passenger fare is on the telescopic basis from April 1, 1955 (i.e rates diminishing with increase in distance travelled). Scale of passenger fares from 1st April, 1955 are given below.

Class	*Distance in miles*	*Rates per mile*
Air-conditioned ..	1—300	34 pies
	301 and above	32 ,,
First class ..	1—150	18 ,,
	151—300	16 ,,
	301 and above	15 ,,
Second Class (*Mail or Express*) ..	1—150 (Mail/Exp)	11 ,,
	1—150 (Ordinary)	9½ ,,
2nd class (*ordinary*)	151—300 (Mail/Exp.)	10½ ,,
	(Ordinary)	9 ,,
	301 and above (Mail/Exp.)	9½ ,,
	(Ordinary)	8½ ,,
Third class	1—150 (Mail/Exp.)	6¼ ,,
	(Ordinary)	5¼ ,,
	150—300 (Mail/Exp)	6 ,,
	(Ordinary)	5 ,,
	151—300 (Mail/Exp.)	6 ,,
	(Ordinary)	5 ,,
	301 and above (Mail/Exp)	5 ,,
	(Ordinary)	4½ ,,

The Railway Passengers Fares Act came into force on September 15, 1959. New taxes on railway passengers fares have been imposed from 15th September, 1957 in all classes at the following rates—

1 to 15 miles	No Tax	31 to 500 miles	15 p.c.
16 to 30 miles	5%	501 and above	10 p.c.

Season tickets will be exempted from the levy of the tax.

For vestibuled air-conditioned third class trains running between

Delhi-Howrah, Delhi-Bombay and Delhi-Madras, an additional charge of 4 pies per mile is charged.

Freight Structure—From October 1, 1958 there have been a number of changes in the rate structure for goods carried by the Indian Railways. The charge for parcels has also gone up slightly and another change is the introduction of the metric system of weights. With the increase of rate, the average rate per ton mile is expected to be 11.3 pics as against 5.8 in 1938-39. Taking 100 as the pre-war level of prices, the new freight structure represents an increase to about 203 compared with the general price index of 400.

RAILWAY LOCOMOTIVE AND OTHER PRODUCTIONS—Internal production is now able to meet the railway's normal annual requirements of rails, wagons and coaches. The Government-owned Chittaranjan Locomotive Works and the Government-assisted Tata Locomotive and Engineering Co. Ltd., which have gone into production are helping to attain self-sufficiency in locomotives also. The Government extended financial assistance to the Telco at Jamshedpur by holding shares to the value of Rs. 2 crores for the manufacture of locomotives and spare boilers. The Chittaranjan Works started production in 1950. The first locomotive was turned out in 1950, the 100th in Jan. 1954, the 200th in Feb. 1955 and 300th in Nov. 1955. During the plan period 341 locomotives have been manufactured. The Integral Coach-building Factory at Perambur (Madras) has gone into production in October 1955, making a major step towards making the railways self-sufficient in passenger coaches. The Government-owned Hindustan Aircraft Ltd. at Bangalore are producing all-steel third class passenger coaches.

TRAINING CENTRES AND RESEARCH—Training facilities for officers in the Engineering and Traffic Departments are provided in several railway training and technical institutes. A Staff College for training of Class I and Class II officers and Special Class Apprentices were opened at Baroda in Jan. 31, 1952. The College provides facilities for training of probationery officers and special class apprentices, refresher courses for junior officers of all departments (except medical), and special short-term courses on selected subjects for senior officers. For the training of Class III staff, there are 24 training schools including one each at the Chittaranjan Locomotive Works and the Perambur Integral Coach Factory, some of these are technical schools attached to the railway workshops to train apprentices for eventual appointment of skilled artisans or as supervisors of skilled workers. A *Signal Training School* to train inspection staff of the Signalling Department of the Indian Railways has been opened in 1957 at Lallaguda in Secenderabad. This is the first of its kind in India and will train 100 candidates at a time.

ELECTRIFICATION OF RAILWAYS—The electrification of railways in India began in 1925. The total electrified route milage on the Indian Railways is 254.24 miles as follows : Central Railway (Bombay-Kurla-Kalyan, Poona-Igatpuri, and Kurla-Mankhurd) 184.85 miles ; Southern Railway (Madras-Tambaram) 18.14 miles ; Western Railway (Bombay-Borivili-Virar) 37.25 miles ; Eastern 14 miles. A further 826 miles will be electrified during Second Plan—463 miles on the Eastern Railway, 72 miles on the South-Eastern, 191 miles on the Central and 100 miles on the Southern.

The main line electrification project in the Eastern and South Eastern Railways consists of electrification of 1,350 route miles of track at an estimated cost of Rs. 84 crores. Electrifications between Moghalsarai on the Eastern Railway and between Asansol and Rourkela including Barajamda branch and the Tatanagar-Kharagpur Section on the South-East Railway have been planned to be completed by the end of 1960.

GAUGES OF RAIL—There are three Gauges of Rail in the Indian Railway system, *viz.*, Broad Gauge "-6"; Meter Gauge 3'-3|8" and Narrow Gauge, which is again divided into two, *viz.*, 2'-0" and 2'-6".

RAILWAY ZONES

The eight zones of the Indian Railways are now as follows—

zone and dates of forming	*Former Rys. included*	*Head-quarters*	*Route mileage as on March* 31, 1956
Southern April 14, 1951	M. & S.M., S.I. & Mysore Railways.	Madras	6,100.04
Central Nov. 5, 1951	G.I.P., Nizam's State, Dholpur and Scindia Railways	Bombay	5,292.92
Western Nov. 5, 1951	B.B. & C.I., Saurashtra, Cutch, Rajasthan and Jaipur Railways and a short section—Marwar-Phulad of the Jodhpur Railways.	Bombay	6,012.93
Northern April 14, 1952	Eastern Punjab, Jodhpur, Bikaner, the three upper divisions of E. I. Ry. and a portion of the B.B.C.I. Rly.	Delhi	6,333.63
Eastern Aug. 1, 1955	E. I. Ry. (minus the three Upper Divisions).	Calcutta	2,329.43
South-Eastern Aug. 1, 1955	B. N. Ry.	Calcutta	3,423.56
North-Eastern	O. T. & Assam Rys. and Fatehgarh Dist. of old B.B.C.I. Ry.	Gorakhpur	3,060.30
North-East Frontier Jan. 15, 1950	do do	Pandu	1,738

South-Eastern Railway—has the route mileage of 3,399.07. This Railway caters to the needs of six States, that is, West Bengal, Bihar, Orissa, Andhra Pradesh, Madhya Pradesh and Bombay. Starting from Howrah it runs 72 miles west upto Kharagpur. Onwards from Kharagpur, the Railway spreads out in three directions. Westwards the main line goes to Nagpur, 703 miles from Howrah.

To the South, the East coast line runs to Waltair, a distance of 547 miles from Howrah. The third line runs from Kharagpur in the north-westerly direction to serve the coal fields of West Bengal and Bihar. The Raipur-Vizianagram broad gauge section which was opened in 1931, links the port of Visakhapatnam with Madhya Pradesh for carrying the heavy manganese ore traffic for export from this area. The Railway joins the Eastern Railway at Howrah, Asansol, Gomoh, Barkakana and Chandrapura. It joins the southern Railway at Waltair and with the Central Railway at Nagpur and Katni. The broad gauge portion comprises 2,474 route miles and the narrow gauge lines serving mainly the Satpura areas in Madhya Pradesh add upto 925 miles. Connecting the ports of Calcutta and Visakhapatnam with their vast hinterlands, it serves the rich paddy fields of West Bengal, the extensive timberlands of Orissa and Madhya Pradesh, as also the coal and steel industries of Bihar and West Bengal. The area covered by the railway is rich in deposits of essential raw materials, such as iron ore, copper, coal, manganese, lime, bauxite and dolomite. Many of the major development projects in eastern India lie on this railway, such as (1) Hirakud project at Sambalpur, (2) two steel plants at Rourkela and Bhilai, (3) Hindusthan Shipyards at Visakhapatnam, (4) oil refinery at Visakhapatnam, (5) two steel works at Tatanagar and Burnpur.

North-Eastern Railway—which came into existence on January 15, ,1958 serves the northern part of West Bengal and Assam northern part of Uttar Pradesh, Northern Bihar. This line has been formed with the former Oudh and Tirhut Railway and Assam Railway. It passes through an area which is subject to heavy rains and consequent floods and breaches. The river Brahmaputra divides the railway into two separate portions. This line operates in a well-developed agricultural region and carries large quantities of sugar-cane, tobacco, tea and rice.

Eastern Railway—has a route mileage of 2,321. The railway serves an area of over 80,000 sq. miles and covers the States of West Bengal, Bihar and parts of Uttar Pradesh which have a heavy population density. This Railway is composed of the five Divisions of the old East Indian Railway, east of Moghalsarai, namely, Dinapore, Dhanbad (transportation division, Asansol, Howrah and Sealdah. This last-named Division was attached to E. I. Ry. after the partition of Bengal-Assam Railway in 1947. Working on the divisional system, the Eastern Railway will have its headquarters at Calcutta. The Eastern Railway connects the port of Calcutta with its rich vast hinterland. It provides transportation facilities, among others, to the rice and jute producing areas of West Bengal and Bihar. The Railway serves the coal-producing areas of Bengal and Bihar and carries 70 to 80 per cent of the total coal produced there.

It serves important industries like metallurgical and steel manufacture at Burnpur and Kulti; chemical fertilizers at Sindri; and locomotives at Chittaranjan. The transport demands of the various industries like jute, chemicals, engineering, cement, leather and textiles, situated in and around Calcutta and at other industrial points are also met by the Eastern Railway.

Western Railway—serves Bombay, Rajasthan and Madhya Pradesh. The line consists of former B. B. C. I. Railway, Saurastra Railway, Rajasthan Railway and Jaipur Railway. This line serves the great industrial areas of Bombay, Ahmedabad and Baroda and handles tremendous quantities of cotton.

Central Railway—serves Bombay, Madhya Pradesh and north-western part of Madras. The line consists of the former G.I.P. Railway, Scindhia Railway, Dholpur Railway and Nizam's State-Railway.

Southern Railway—On April 14, 1951, the three railway systems, viz., Madras and Southern Mahratta Railway, South Indian Railway and Mysore Railway were integrated into a single railway zone—the Southern Railway serves the densely-populated fertile areas of Madras, Mysore, Kerala and parts of southern Bombay and Andhra. This railway links the northern and southern portion of India.

Northern Railway—This Railway came into being in 1952 through the synthesis of the three divisions of East Indian Railway, a portion of the Bombay, Baroda and Central India Railway and the whole of the Eastern Punjab, Jodhpur and Bikaner Railways. This line serves Punjab, Delhi, northern and eastern Rajasthan and Uttar-Pradesh upto Banaras.

SOME RAILWAY ORGANISATIONS

Central Standards Office—There is a Central Standards Office in New Delhi for the conduct of all works connected with the production of standard design and specifications for all materials, plant and rolling stock in use on Indian railways. Three separate branches of this office deal respectively with mechanical engineering standards, civil engineering standards and specifications, while a separate research branch undertakes civil and mechanical engineering research.

Indian Railway Conference Association—This Association was first organised in 1871. The present organisation was inaugurated in 1902 establishing the permanent Conference, independent of Government. The Association lays down rules for the interchange of stock between railways and acts as a central co-ordinating agency for tackling all problems of common interest pertaining to the different systems of railways in regard to transport, such as coaching tariff, freight structure, interchange rules, cross traffic rules, etc.

Standards Advisory Committee of experts has been set up to introduce standardization in railway working and to remove wide divergencies regarding the stores nomenclature, servicing and repairs to rolling stock, methods of training staff, etc.

Consultative Committees—In order to afford closer consultation between the public and the railway administrations at different levels on matters relating to the service provided by the railway, consultative committees have been established, in place of the advisory committees—

(1) *Regional-Users' Consultative Committees* at the regional or divisional levels ;

(2) *Zonal Railway Users' Consultative Committees at the head-quarters of each railway zone*, and

(3) *National Railway Users' Consultative Committee* at the Centre.

The Railway Users' Consultative Committees in the regions or divisions will represent the local users in the territories served by the railways including agricultural interests. The National Railway Users' Consultative Committee at the Centre will deal with matters of all-India importance relating to the services and facilities provided by the railways, while the zonal committees would deal with similar matters in regard to the respective zones.

Railway Rates Tribunal—This Tribunal has been established in 1949. This Tribunal enquiries into complaints lodged by the commercial bodies and representative trade associations in the matter of freight charges on railways and other cognate matters. Its office is located in Madras. The Tribunal will deal only with freight rates and have mandatory jurisdiction. It consists of a President and two members. To assist the Tribunal, two panels of assessors are constituted, one representing trade, industry and agriculture and the other, the other railways.

Central Board of Transport—has been formed in 1947 to deal with the major problems of transport and policies in the country and it formulates broad policies. The two main objectives of the Board are (1) maximum co-ordination of all forms of transport and (2) the co-ordination of transport planning and its execution with the plans for agricultural and industrial development. The Board's objective is to secure the optimum movement of goods according to priority and simultaneously relief of the strain on railways by harnessing other forms of transport. The Board consists of the Ministers for Transport and Communications and Commerce and Industry and other senior officers of the Ministries of Finance, Defence, Commerce and Industry, Home Affairs, Railways and Transport.

Railway Service Commissions—There are Railway Service Commissions in Bombay, Calcutta, Lucknow and Madras for the purpose of recruitment of railway personnel for the respective zonal railways. Each Service Commission has a Chairman and one/two members, a Secretary with a Secretariat.

Efficiency Bureau—has been set up, whose function mainly is to investigate problems having a bearing on the efficiency of the railways in various facets of working and to suggest ways and means of securing improvements in efficiency.

Central Clearing House—There is a Clearing Accounts Office at Delhi whose main function is to allocate inter-railway revenue and expenditure under various heads to the different railways.

Standing Committee (Developments)—A Standing Committee consisting of Railway Adviser as Chairman, Economic Adviser, Director Research Centre, Lucknow, the Chief Design Engineer (carriage & wagon) and Joint Director, Efficiency Bureau was set up in order to keep in touch with the new developments in railway working in other countries, as also the changing needs in the country itself

by a study of the current technical literature published in India and abroad.

RAILWAY AMENITIES—Since independence, great improvements have taken place in providing amenities for passengers. Formerly all the amenities were meant for upper class passengers. The third class passengers who form the majority of railway passengers were more or less neglected. During the past few years, much has been done to make rail more comfortable and to remove the gap in the amenities enjoyed by various classes of passengers. The railways have now laid down that certain minimum amenities must be provided at all stations, irrespective of their size or status. These include waiting halls, a pucca platform surface, benches and shady trees on platforms, improved types of latrines, adequate arrangements for lighting and drinking water and sufficient number of booking windows.

Travel standards are also being upgraded. The new all-steel coaches have been introduced. Seats have been specially designed to provide greater sitting comfort, Janata Express trains consisting entirely of third class are now running on the main trunk routes. Dining cars, retiring rooms and upper class entrances and exits have been thrown open to third class passengers. From October 2, 1955, first vestibuled train between Delhi and Howrah has been introduced. From October 2, 1956, a fully air-conditioned train for first and third class passengers has been introduced. This train is the fastest operating on the entire Indian railway system.

NON-GOVERNMENT RAILWAYS

	mileage	*Classification*
Ahmadpur-Katwa ..	35.57	Under unguaranteed terms
Arra-Susaram Light ..	71.67	Subsidised by Dist. Board
Bankura-Damodar River ..	67.47	Under guaranteed terms
Bakhtiarpur-Bihar Light ..	36.40	Subsidised by Dist. Board
Burdwan-Katwa ..	36.98	Under guaranteed terms
Dehri-Rohtas Light ..	50.37	Subsidised by Dist. Board
Fatwah-Islampur ..	28.93	Under guaranteed terms
Howrah-Amta Light ..	51.49	Subsidised by Dist. Board
Howrah-Sheakhala Light ..	21.23	do
Jagadhri Light ..	3.86	Unassisted
Kalighat-Falta ..	32.31	Under guaranteed terms
Sahadara-Saharanpur Light	106.09	Subsidised by Government

RAILWAY TRAFFIC

	Passengers (000)	Passengers earnings (*Lakhs of Rs.*)	Goods (000 tons)	Goods earnings (*Lakhs of Rs.*)
1951-52	12,32,073	11,142	98,025	15,395
1952-53	12,12,090	10,183	98,370	14,381
1953-54	12,20,400	10,135	99,360	14,539
1954-55	12,60,890	10,374	1,06,979	15,645
1955-56	12,97,431	10,875	1,15,283	17,792
1956-57	13,82,540	11,739	1,25,380	20,109

RAILWAY FINANCE
(Crores of Rupees)

	1954-55	1955-56	1956-57 (*Accounts*)	1957-58 (*Revised*)	1958-59 (*Budget*)
Passenger Receipts	102.62	107.71	116.33	120.90	124.73
Goods Receipts	158.69	180.28	202.96	231.00	250.50
Dividend to General Revenues ..	34.96	36.12	38.16	44.24	49.58
Appropriation to Development fund .	9.10	7.08	20.22	21.66	27.34
Revenue Reserve Fund	—	7.14	—	—	—

RAILWAY FINANCES
(Crores of Rupees)

		1956-57 (*Accounts*)	1957-58 (*Revised*)	1958-59 (*Budget*)
I.	*Capital-at-charge* ..	1,071.71	1,209.13	1,347.97
II.	*Total Receipts* ..	347.94	384.55	407.60
III.	*Total Expenses* ..	289.56	318.65	330.68
IV.	*Net Revenue* (II-III) ..	58.38	65.90	76.92
V.	*Dividend to General Revenue* ..	38.16	44.24	49.58
IVI.	*Surplus* (IV-V) ..	20.22	21.66	27.34
VII.	*Appropriation to*			
	(a) Dev Fund	20.22	21.66	27.34
	(b) Rev. Reserve Fund ..		..	..

(*Report on Currency & Finance,* 1957-58).

MILEAGE OF INDIAN RAILWAYS

	Mileage		*Mileage*		*Mileage*
1853 ..	20	1913-14 ..	34,656	1950-51 ..	34,079
1863 ..	2,507	1923-24 ..	38,039	1951-52 ..	34,119
1873 ..	5,697	1933-34 ..	42,953	1952-53 ..	34,275
1883 ..	10,447	1943-44 ..	40,512	1953-54 ..	34,406
1893 ..	18,459	1947-48 ..	33,985	1954-55 ..	34,705
1903 ..	26,956	1948-49 ..	33,861	1955-56 ..	34,736
		1949-50 ..	34,002	1956-57 ..	34,744

RAILWAY FACTS

The Indian Railway at present is the biggest railway system in Asia and the fourth in the world.

* * * *

India has the second largest natonalised railway system in the world, the first being that of the U.S.S.R.

* * * *

There are about 6,000 Railway Stations in India.

* * * *

Third class passengers contribute 90 p.c. of the railway receipts.

* * * *

Carrying nearly 2,340 passengers every minute, Indian Railway trains are supposed to be the most crowded trains in the world today.

* * * *

About 7 000 passenger and goods trains run daily in India traversing distances aggregating an average of 562,000 miles per day.

* * * *

If all the passenger coaches of the different railways could be put together, a 125-mile long train could be formed

* * * *

Today more than one per cent of the Indian people board trains daily.

* * * *

India has three gauges of railways—Broad Gauge (5½′), Metre Gauge (3′ and 3-⅜″), Narrow Gauge (2′ 6″ and 2′).

* * * *

Most Indian railway gauges are five feet six inches wide and they are the broadest in the world.

* * * *

The famous trains of India are the *Deccan Queen* of the Central Railway which links Bombay with Poona. It is the fastest short distance train maintaining for some time a start to stop speed of 45 miles per hour. *Flying Ranee* run by Western Railway between Bombay and Surat is a corridor train in India *Delhi Madras Grand Trunk Express* runs 1,361 miles and traverses half the subcontinent of India. *Frontier Mail,* though short of its previous grandeur, provides the shortest and the quickest service between Bombay and the North.

* * * *

Indian railways carry about 1300 million passengers per annum, nearly equivalent to four times of India's population.

* * * *

Indian Railways carry 80 per cent of the goods traffic and 70 per cent of the passenger traffic.

* * * *

Railway station with smallest letters is "IB' railway station in South-Eastern Railway between Jharsuguda and Brajarajnagar in Orissa.

* * * *

With capital of 1,000 crore of rupees invested by the State, the Indian Railways is one of the largest enterprises of the world.

* * * *

Biggest Indian Railway tunnel is the Torsi Tunnel which is three quarter of a mile long.

Fully vestibuled third class Janata train was introduced from October 7, 1955 between Delhi and Howrah. Similar trains have since been introduced on other main trunk routes, viz., Delhi-Madras, Madras-Howrah and Madras-Bombay.

* * * *

Old iron bridge in India is the old iron bridge over river Gumti, Lucknow.

* * * *

The longest platform in India (2,415 ft) is at Sonepur.

* * * *

There are 349 bookstalls on the Indian railways. The Railway-wise distribution is : Southern 91 , Central 66, Northern 61 ; Western 41 ; North-Eastern 40 , Eastern 29 and South Eastern 21.

* * * *

The Indian Railways consume nearly ten million tons of coal every year

* * * *

The longest bridge, the Sone Bridge, has 95 spans, each a hundred feet apart. It is 10,052 ft. long.

* * * *

The Indian Railways are the largest employers in the country, employing nearly a million men at an annual cost of about Rs. 123 crores.

Important Railway Dates

1853—First Indian Railway was opened on 16th April, 1853 between Bombay and Thana, a distance of 13 miles

1905—Railway Board came into existence in March, 1905.

1925—First electric train in India ran between Victoria Terminus (Bombay) and Kurla

1937—First air-conditioned coach to run in public service in India was attached to an Indian train in 1937 between Bombay and Delhi.

1951—Formal opening of the Chittaranjan Locomotive Works on 26th Jan 1951.

1952—Railway Staff College at Baroda was opened in Jan , 1952

1953—Indian Railways Centenary Exhibition was opened in New Delhi and Calcutta on 2nd Oct , 1953

1956—First vestibuled Air-conditioned third class express started between Delhi and Calcutta on 2nd Oct , 1956

1956—First All-Indian all-steel integral broad gauge passenger coach was launched at Perambur (Madras) on 14th August, 1956.

2. ROADS IN INDIA

PROBLEM OF ROADS IN INDIA—The importance of roads and the facilities of transport in a vast country like India can scarcely be exaggerated. A system of well-kept and well-constructed roads is essential for country's economic and cultural progress. The roads have also a vital role to play in the defence of India. The effectiveness of defence depends on the ability of our armed forces to concentrate at any threatened point within shortest possible time. So the effectiveness of our defence to a large extent depends on the efficiency of our road system. India's deficiency in the matter of roads has contributed very largely to her agricultural, commercial and industrial backwardness today. The most serious defect is the lack of proper and adequate road communication between villages and markets. Another aspect of inadequacy of our road system is that it is unbalanced The trunk roads are, for example, relatively more highly developed than the district and village roads. Most of the rural roads are fair weather roads. With the arrival of the monsoon, they are turned into mud and pools of dirty water and are rendered unusable.

In the beginning of the first Five-Year Plan, India had about 98,000 miles of surfaced roads and about 1,51,000 miles of unsurfaced roads. At the end of the First Plan this road mileage rose to 3,20,522 miles including roads under Community Development Projects and National Extension Schemes. The break-up of these roads are as follows—*surfaced*—1,22,170 ; *unsurfaced*—1,98,352 , total 2,76,153 ; Community Projects and N.E S. roads—*surfaced* 6,029 ; *unsurfaced*—38,430 , total 3,20,522

SHORT HISTORY OF ROAD PROGESS—The present road system is a superstructure raised on the old Mughal and other roads. Its development began one hundred years ago under the auspices of the Government of India. But Government's entire energy being directed towards opening of railways, the roads came to be regarded as of local importance, a fit subject for devolution. The culmination of the lack of interest was reached in the Government of India Act of 1919 which transferred the subject to the provinces. The Central Government ceased to concern itself with road development except roads of military importance and certain arterial roads in Indian States.

But the circumstances changed after the World War I. Motor transport began to come in the forefront and it became a common feature on the principal roads throughout the country. The result was that the road expansion could not keep pace with the increase of motor traffic and the existing roads began to deteriorate. A resolution was carried in the Council of State in 1927 for the improvement of road system with the result that a committee of both the chambers of the Central Legislature was set up under the chairmanship of Dr. M R. Jayakar to investigate and report. The Jayakar Committee in 1928 reported that onus of road development was passing beyond the capacity of Provincial Governments and local bodies, that it was becoming a matter of national importance, and to that extent might be a proper charge on central revenues. The Committee recommended that the Centre should assist co-ordinated development by making annual block grants to provinces from out of a Central Road Fund built up by a petrol tax surcharge of two annas per gallon. The Committee considered that the balances in the Fund should not be allowed to lapse at the end of each year, as road programme was required to be planned and executed over a number of years and for this purpose continuance of funds should be assured. The Jayakar Committee also recommended the setting up of (*i*) a separate Road Development Committee in the Central Government, (*ii*) a Transport Advisory Committee consisting of the representatives from Central Government and the Provinces, (*iii*) a Central Organisation of Information and Research. A *Central Road Organisation* was set up in 1930 and a *Transport Advisory Council* in 1935.

After this, the Indian Road Congress was largely instrumental in producing an integrated road plan for the whole of India known as '*Nagpur Plan*'. It visualised an integrated development of roads for the whole country at a time when very few among them were even conscious of countrywide development.

ROAD ADMINISTRATION—Road Development is shared by the Centre and the States, the former being responsible for the National Highways and certain selected roads of strategic or other importance and the States for their own state roads and for village roads. A central Road Fund was created in 1929 from the proceeds of a surcharge on petrol tax. Out of this fund, block grants were made to the provinces for road-building. In 1947, the Central Government assumed the responsibility for the construction and maintenance of the "National highways". Under the Indian Constitution, national highways have become Central subjects, while other roads, namely State highways and district and village roads, are the responsibility of the State Governments.

Central Government is also responsible for the development of roads other than national highways in the Union Territories of Delhi, Himachal Pradesh, Manipur, Tripura, Andaman & Nicobar Islands and the North-East Frontier Agency area.

CENTRAL ROAD FUND—The creation of Central Road Fund in 1929 on the recommendation of Jayakar Committee, constitutes a milestone in the history of road transport in India. This fund was built up out of an additional tax of two annas (now 2½ annas) a gallon on motor spirit. The Road Fund is administered by the Central Government with the advice of a standing committee of the Central Legislature. Part of the fund—one sixth—was to be reserved for central administration, research, intelligence and grants for undertakings of special or all-India importance. The balance of the fund is for allocation to the provinces and States according to the consumption of petrol in each administrative unit. Block grants to the provinces from the fund is intended to augment principal allotments for road development. The Central Road Fund continues to provide an important source for financing road development and research activities. It now provides about Rs. 4½ crores annually for the development of roads other than national highways. A part of the Fund, now one-fifth, has been reserved for works of special all-India importance, the balance being allocated to the States for approved works.

NAGPUR PLAN—In December, 1943, a Conference of Chief Engineers was convened by the Government of India at the instance of the Indian Road Congress. This conference is an important landmark in the history of Indian roads so far as the road development in India is concerned. This conference drew up a ten-year plan of road development which is known as *Nagpur Plan*. The Nagpur Plan called for an increase of road mileage from 265,000 to 400,000 and an improvement of the existing roads. The Plan visualised the growth of a network of road communications at a cost of Rs. 372 crores within ten years. The programme, however, has had to be drastically reduced owing to a shortage of money, material and trained personnel.

The Conference classified roads under the following heads—*National Highways, Provincial or State Highways, Major District Roads, Minor District Roads* and *Village Roads*. National Highways are to be the frame-work for the country's road system. The *National Highways* will connect capitals of provinces and States, ports and highways and constitute the main arteries of communication in the country. They will include roads of strategic importance. The *Provincial or State Highways* will be the main trunk roads of a province or state. *Districts Roads* will connect areas of production and markets with either a highway or a railway. They will also form the main links between headquarters of neighbouring districts. *Minor District Roads* and *Village Roads* will mostly meet the requirements of rural population; they connect villages and groups of villages with one another and with nearest district road or river ghat.

Nagpur plan recommends the assumption by the Central Government of complete financial liability covering both fresh development and annual maintenance of roads designated as National Highways. These are to be administered by an impartial Road Board. With effect from 1st April, 1947 complete financial liability for the construction and maintenance of every road, which is classified as a National Highway, has been undertaken by the Government of India.

National Highways—The National Highway routes generally follow the existing trunk roads which are already largely surfaced. The total mileage of National Highways is about 13,800. These include *Grand Trunk Road* from Calcutta to Amritsar *via* Banaras, Kanpur, Agra, and Delhi; *Agra-Bombay Road*; *Bombay-Bangalore-Madras Road*; *Madras-Calcutta Road*; *Calcutta-Nagpur-Bombay Road*; *Banaras-Nagpur-Hyderabad-Kurnool-Bangalore-Cape Comorin Road*; *Delhi-Ahmedabad-Bombay Road*; *road from Ahmedabad to Kandla Port* with a branch road to Porbandar; *Hindustan-Tibet road* from Ambala to Tibet border *via* Simla; *road from Delhi to Lucknow. Gorakhpur and Mazaffarpur* with a branch road to the Nepal border; *Assam Access Road*; *Assam Trunk Road* on the south bank of the Brahmaputra and the road branching off from the Assam Trunk Road towards the Burma border through the State of Manipur. A sum of Rs. 34 crores was spent on the development of national highway upto the end of the First Five-Year Plan. A provision of Rs. 55 crores has been made in the Second Plan for the development of national highways. It is to be noted that the construction of the National Highways is the entire responsibility of the Central Government.

The targets aimed at in the Second Five-Year Plan for the development of National Highways are the construction of 900 miles of mixing links, bypasses and diversions, 60 major bridges, the improvement of 4,000 miles of existing sections of the national highways and the widening of 1,500 miles of improved sections to two-lane carriage ways. The important national highways under construction are (1) Jawahar (Banihal) Tunnel on the Jammu-Srinagar-Uri National Highway. This is one of the longest tunnels in the world (2) construction of motorable road from Narkonda to Chini on the Hindustan-Tibet National Highway (3) construction of an all-weather road from Bombay to Delhi via Ahmedabad (4) the improvement of National Highway approaches to Delhi (5) the construction of a rail-cum-road bridge across Ganga at Mokameh.

INDIAN ROADS CONGRESS—The Central Government took steps to promote the creation of a semi-official body known as *Indian Roads Congress* in 1934. The membership of the body is open to qualified engineers dealing with roads. The Roads Congress is designed to provide a forum for the regular pooling of experience and ideas on all matters affecting the construction and maintenance of roads, to recommend standard specifications, and to provide a platform for the expression of professional opinion on matters relating to road engineering, including such questions as those of organisation and administration.

The most important contribution of Indian Roads Congress to the science of road engineering in India, besides the study of roads from various aspects, is the "standard specifications and Code of Practice for Road Bridges in India" which has been accorded general acceptance throughout India.

When the highway engineers got busy to complete the projects and were ready with their blueprints to start work, a sudden setback came in the shape of the partition of India which dislocated all transport and various organisations concerned with the procurement of road materials. The financial stringency of the Government of India compelled the progress to slow down. As a result, in the period of three years from 1947, not even one hundredth part of the Nagpur target of building and improving roads could be completed.

GOVERNMENT ORGANISATIONS—At the Centre, the Government have built up the *Central Roads Organisation* under the Consulting Engineer to the Government of India (Roads). The Roads Organisation activities are not confined to National Highways; it tackles a host of other problems concerning road development in general, grants to State Governments for development of roads other than National Highways, road research, road statistics, bulk procurement of machinery and overseas training of road engineers.

Second Five-Year Plan—The second Five-Year Plan provides for Rs. 269.5 crores for road construction, comprising Rs. 55 crores for National Highways, Rs. 27.5 crores as Central aid to States, Rs. 25 crores as Central Road Fund—representing a part of road usage taxation and Rs. 162 crores as States expenditure.

RESEARCH AND TECHNICAL ACTIVITIES AND TRAINING The Central Designs Office of the Road Organisation deals with items, such as, type designs for route marking for the national highways and for furlong and boundary stones, principles to be followed in the erection of advertisement boards on road-sides, form of recording data on bridges, etc.

Central Road Research Institute has been started at Okhla in Delhi in July 16, 1952 for the research on road engineering in its various aspects and construction and maintenance of all kinds of roads. Technical advice is also given to State Governments on various problems concerning road work It seeks to provide cheap and durable roads to suit growing transportation needs of a rapidly expanding economy

Facilities for acquiring advanced practical training in modern methods of highway and bridge engineering are now being provided under various schemes such as under Commonwealth Technical Co-operation Scheme, Point Four Aid Programme The Central Roads Organisation also imparts training to engineers from State Governments in modern methods of road and bridge designs

Road Mileage in Various Countries in Relation to Area and Population

	Mileage of motorable roads	*Mileage of unmotorable roads*	*Total mileage of roads*
India	181 406	57 576	238,081
U. S A (1940)	1 000 000	2,009,000	3,009 000
U. K. (1939)	160,120	19,170	179,290
France (1939)	.		405,028

Indian Union's Road Development Plan

	Existing	*Nagpur plan*
Total Road mileage (1943)	239,081	385,226
Motorable road mileage (1943)	181 406	289,855
Total road mileage per million persons	749 89	1,208 18
Motorable road mileage per million persons	568 99	909 14
Total road mileage per 1,000 sq miles of area	196 45	316·53
Motorable road mileage per 1,000 sq. miles of area	149 06	238·17

(Govt of India pamphlet "Our Roads")

3. ROAD TRANSPORT

The Constitution empowers the Central Government to legislate on the principles of motor vehicles taxation—but the power to levy taxes on motor vehicles vests in the States Motor vehicles are now playing an important part in the road transport of India and are slowly replacing bullock-carts It was virtually unknown before World War I, but soon after the war ended, public transport services rapidly sprang up. The Motor

Vehicles Act of 1939 was a big step towards creating for condition enabling motor transport to develop along sound lines. Direct taxation of motor vehicles is a State subject in India. The two main disabilities from which the motor transport in India suffers are heavy taxation and the threat of nationalisation. Three agencies levy taxes on motor transport, *viz*, the Centre, the States and the Local Bodies. Further, the taxes are not based on any common policy but only on the exigencies of Budget. The Central taxes are import duties on cars, etc., and customs and excise duties on motor spirit. The present duty of Rs. 0·15-9 per gallon of motor spirit is the heaviest *ad valorem* duty levied in the country on any commodity including the most luxurious ones like gold and diamond. The States levy two taxes, a sales tax on motor spirit and a motor vehicle tax, both varying from state to state. The local taxes are octroi, transit fees and wheel tax. The motor transport in this country has been solely developed by private enterprise and it is estimated that the value of vehicles in circulation and their spare parts is about Rs. 300 crores. The second Five-Year Plan says that the total number of motor vehicles on the roads is only 353,000, which "must be considered very small, having regard to the size of the country, its road mileage and its population. The main reason for this arrested development is the crushing taxation levied on motor vehicles of all types."

Under Indian Motor Vehicles Act, each State is divided into two or more regions with a *Regional Transport Authority* in each such region. To co-ordinate the work of Regional Authority there is in addition a *Provincial Transport Authority* in each State. The Act has also provided for compulsory insurance of motor vehicles in respect of third parties.

Under the *Road Transport Corporations Act, 1950,* statutory transport corporations are being formed on tripartite basis by the State Governments, railways and private operators. The State operated services mainly provide passenger transport. State operated services exist in almost all the States in India.

Motor Vehicles (Amendment) Act to amend the Act of 1939 was passed in 1956. The Act provides for the implementation of the motor transport reorganisation schemes of the State Governments and several other measures connected with the planned development of motor transport in the country. The Act will facilitate the development of motor transport generally in the country to meet the additional demand on transport created by the large-scale development of industries. The Act contains the provisions for the nationalisation of motor transport service. It also seeks to remove the defects of the old Act. The Act provides for the establishment of Inter-State Transport Commission which would be appointed by the Central Government. There is also provision for the payment of compensation to private operators whose transport undertakings are nationalised before the expiry of their permits.

Nationalisation of Transport—About all the major States of India have accepted nationalisation of bus services as a basic policy and many have reached a stage where they have nearly taken over the entire private bus transport in their area with a view to ensuring autonomy and efficient administration. But in consultation with the Ministry of Transport, the Planning Commission has advised the State Governments to defer the nationalisation of goods transport during Second Plan and to nationalise the passenger transport service according to a phased programme.

INTER-STATE TRANSPORT COMMISSION—The Government of India have appointed an Inter-State Transport Commission in 1958 for the purpose of developing and regulating the operation of transport vehicles of any area or route common to two or more States and performing such other functions as may be prescribed by the Union Government. The Commission will prepare schemes for the development, co-ordination or regulation of the operation of transport vehicles and in particular of goods in an inter-state region.

ROPEWAYS—Ropeways are used in India in areas of hilly and broken country where valleys and streams abound and gradients are steep and where other forms of communication are primitive or non-existent. These conditions obtain in the foothills of the Himalayas and in some parts of South India In India the use of ropeways is confined to the movement of materials and merchandise. The following are the Ropeways operating in India at present—(1) *Darjeeling-Bijanbari mono-cable ropeway* which is five miles long with one span of 6,000 ft. (2) *Mono-cable ropeway* at Kalimpong which climbs 3,400 ft. in its length Both these ropeways are regarded as extensions to railway system (3) *Cherra Chatak Ropeways* at Cherrapunji in Assam (4) *Annamalai Ropeway* in South India serves tea and coffee on the 5,000 feet high plateau

Apart from these several purposes public or semi-public applications, ropeways transport is extensively used in the tea planting districts. It is also found in coal-mining area mainly in Bihar and Bengal where it provides a particularly economical method of transporting waste to spoil damps It is used in the manufacture of cement and in the working of quarries, mines sand, gravel and clay pits. Ropeways are used elsewhere in civil engineering for large constructions, such as masonry dams and bridges There are approximately 100 ropeways operating in India today

STATISTICS OF CARTS, ETC—There were in 1958 about one crore bullock carts in India, 40 lakhs bicycles and 4 lakhs motor vehicles including 40 000 motor vehicles

SAFETY ON ROADS—Although the total of fatal road accidents in India is much less than of U S A, our death rate per 10,000 vehicles is 75 as against 16 and 8 in the UK. and the U S respectively.

3. INLAND WATER TRANSPORT

POSITION OF INLAND WATERWAYS IN INDIA—From ancient times, the trade and commerce of northern India has been facilitated by the abundance of nevigable streams. History records evidence of a flourishing trade carried on along the rivers and canals of India from the earliest times. Inland navigation in India was highly developed, judged by relative standards of the time. The importance of waterways gradually diminished with the development of railways with the result that steamer service was gradually withdrawn and country boat traffic also decreased.

At present inland water transport in India is mainly confined to the States of Assam, West Bengal, Bihar, Uttar Pradesh, Madras, Andhra and Kerala. At present total mileage of navigable waterways in India is over 5,000 miles. At present 1,557 miles of rivers are navigable by mechanically-propelled vessels and 3,587 miles by large country boats. This excludes tidal creeks on the coast, which are not connected with any inland waterway. River navigation is practically confined to the Ganga and Brahmaputra. There are some *irrigation-cum-navigation canals*. These are coastal canals fed by salt water along the east and west coast, such as Hijilli tidal canal in West Bengal, the Orissa coast canal, the Buckingham and Vedaraniyam canals in Andhra Pradesh and Madras along the east coast, and west coast canals and backwaters of Kerala and Mysore which are providing useful means of transport of large quantities of goods.

The new multipurpose river valley projects include schemes for navigation channels. D.V.C., for instance, envisages a channel from Calcutta to Raniganj coal fields, which is under construction; Kakrapar Project in Bombay will provide navigable channels from the sea to Kakrapar Dam and 50 miles further inland ; and the Hirakud Project will make the Mahanadi navigable for the last 300 miles down the sea.

The need for developing inland waterways has now been realised. As things stand, the railways and road services are unable to cope with the transport requirements of the country. A number of plans are now under consideration. A beginning has already been made with the constitution of the *Ganga-Brahmaputra Water Transport Board* in 1952 by the Government of India. This Board has been charged with the responsibility of improving the Ganga-Brahmaputra river systems for navigation and to extend it as far as possible.

The Board is under the control of the Central Ministry of Transport. The functions of the Board are the development of water transport, the improvement of navigable facilities, the handling of administrative problems, such as those arising out of registration and licensing, the fixing of passenger and freight rates and the administration of a pilot project for towing country craft with shallow draught tugs. The Ganga-Brahmaputra Board has already taken up three experimental projects. Two of these projects are on the upper Ganga and the feeder rivers of Assam and the third is a project in Assam for a passenger and vehicular ferry vessel on the Brahmaputra. Development works in the Ganga-Brahmaputra region include dredging of important waterways and provision for aids to navigation.

The other scheme is Calcutta-Cochin canal. Besides these bold schemes, there are others to link up the major rivers of India. In the Calcutta-Cochin scheme a number of canals exist, such as the Midnapur and Orissa Coastal canals, the Godavari and Krishna delta canals, the Buckingham canal and the Vedaranniyam canal. All these canals could be improved and the gaps linked up to provide a waterway from Calcutta to the Kaveri. A plan to construct a navigable waterway is under consideration to connect the Brahmaputra with the Ganga through Indian territory. The canal will be of immense service in transporting goods from Assam.

Other schemes suggested to link up the major rivers of India consist of (1) joining the Narbada with Johilla, a tributary of the Sone; (2) connecting the Biran, a tributary of Narbada, with Katni, a tributary of Sone; (3) connecting the Narbada with Bearma, a tributary of Ken which falls in the Yamuna; (4) connecting the Karam, a tributary of the Narbada, with Chambal; (5) linking up the Narbada with Wainganga, a tributary of the Godavari; (6) linking Hasdo, a tributary of the Mahanadi, with Rihand, a tributary of the Sone; (7) joining Wardha, a tributary of the Godavari, with the Tapti. The Upper and Lower Ganga canals which were navigable in the beginning have now partly silted up. They could be improved and thus navigation by boats could be extended up to Hardwar.

These schemes, if successful, will mean the linking up of the Ganga and the Yamuna with the Narbada and the Mahanadi. The Godavari will be linked up with the Narbada and the Tapti . It will then be possible to go from the ports of the Bay of Bengal to the Arabian Sea coast along inland waterways.

ADMINISTRATION OF INLAND WATERWAYS—In our Constitution, 'national waterways' have been included in the Union List, while inland navigation with respect to mechanically-propelled vessels appears in the Concurrent List. The Central Water and Power Commission is the departmental body specifically responsible for surveys, planning and development of water transport. Inland Steam Vessels Act of 1947 as amended in 1951 provides compulsory registration of all inland steam vessels. State Governments have been asked to consider the feasibility of registration of dumb craft including country boats.

SECOND PLAN PERIOD—During Second Plan, a provision for Rs. 3 crore has been made for the development of inland water transport. This includes Rs. 115 lakh for the development of the Buckingham Canal and Rs. 43 lakh for the West Coast Canals. The balance of the provision together with contributions from the State Governments to the revenues of the Ganga-Brahmaputra Board will be available for projects to be undertaken by the Board.

4. CIVIL AVIATION IN INDIA

HISTORY OF CIVIL AVIATION—Human flight began in India by balloon, when Mr. Joseph Lynn took off from Lalbagh Gardens, Bombay, in 1877 and rose to a height of 7,500 feet. By 1911, however, army officers were able to make demonstration flights in a "power driven" aeroplane; and in the same year the world's first "air mail" was flown from Allahabad to Naini Junction—a distance of six miles by a French pilot, M. Picqet. Lord Lloyd, then Governor of Bombay, organised the first regular airmail service in 1920, but it was not until 1926 that the pace of development accelerated.

The plans of Imperial Airways for a service between England and India during that year gave Indian civil aviation a powerful stimulus. A Department of Civil Aviation was established to regulate international and internal services in 1927; aerodromes were constructed, and flying clubs started encouraging public interest in this new form of transport. With the first scheduled flights between London and Karachi in 1929, India joined other countries on the new air maps of the world.

In the following fifteen years, from 1930 to the end of World War II in 1945, Indian Civil aviation expanded until the farthest corners of the sub-continent were linked by air. Foremost in this growth were Tata Airlines Ltd. and Indian National Airways, followed by many other private companies; almost all of which benefited in experience, equipment and finance by their military service during the war years. The war also brought about tremendous advances in other aspects of air transport: hundreds of new aerodromes were built, flight and communications techniques were improved, and the advantages of flying as a safe, efficient and comfortable form of transport were firmly established.

From 1945, passenger and freight traffic steadily increased over the air routes of the eleven companies then licensed to operate. But costs also rose steeply, and it beame progressively clear that the industry would be unable to mobilise adequate resources for undertaking urgent prospective development. Taking all this into account, a committee of enquiry was appointed by the Government in 1950 presided over by the late Mr. Rajadhyaksha to examine the working of the air lines and make recommendations regarding putting the Indian civil aviation on a stable basis. The Committee reported that (1) the number of operating units in the country was much greater than that required for the volume of business, (2) cost of most of the companies was excessive, (3) subject to reorganisation and reduction of costs, operation of air lines by private enterprise might be allowed to continue.

The financial position of the companies, however, continued to deteriorate. The companies were not in a position to raise funds in open market and suggested most of the finance should come from the Government in the form of loans on a nominal rate of interest without any early prospects of repayment. Taking all these into consideration, the Government came to the conclusion that all the units of operation should be owned by the State. The result was the passing of the Air Corporation Act, 1953 which came into force on the 28th May, 1953. It provided for the setting up of two Corporations, one for the operation of long distance and another for domestic services and services to neighbouring countries. The two Corporations took over the existing companies as going concerns with their assets and liabilities in accordance with the provisions of the Act.

The main Provisions of the Air Corporation Act—(1)An *Air Transport Council* to be established to tender advice on matters of public importance. (2) *An Advisory Cnmmittee* for each corporation to be established for the purpose of maintaining liaision with the public. (3) There will be *Labour Relations Committee* for each corporation consisting of representatives of the corporation and of employees. This committee will give advice to the Corporation relating to labour. (4) Finally each Corporation is to act so far as may be on business principles.

The two corporations, *viz., Indian Airlines Corporation* and *Air India International,* came into formal existence on the 15th June, 1953. On the 1st August, 1953 Air-India International took over the business of the Air-India International Ltd., while the Indian Airlines Corporation took over as a going concern the assets, liabilities and business of eight units, namely, Airways (India) Ltd., Himalayan Aviation Ltd., Kalinga Airlines, Bharat Airways Ltd., Air-India Ltd., Air Services of India Ltd., Deccan Airways Ltd., and Indian National Airways Ltd.

The Corporation had appointed Resident Representatives stationed at the appropriate Line offices. The total area of operations had also been divided into two Regions, and in each such region one Representative had senior charge of all other Lines. This set-up has now been replaced by a fully integrated one, where the organisation in its entirety is controlled by a strong centre—each Head of a Department being in charge of the relevant sections at the Zones.

The *Indian Airlines Corporation* consists of a Chairman and 6 members appointed by the Government. The Corporation is a statutory body thoroughly independent to manage its day-to-day business. The Government, however, has the power to issue directives to it from time to time. It further receives their annual programmes of operations and financial estimates. The accounts of the Corporation are audited by the Comptroller and Auditor-General, and are then placed by Government before both Houses of Parliament, together with appropriate audit reports. When development capital is required by the Corporations, it has to be provided either by the Central Government or by authorised borrowing, under issue of bonds, debentures, debenture stock or other security.

PROGRESS OF CIVIL AVIATION—Progress of civil aviation in India can be summed up as follows :—From Frivandrum at the extreme South to Srinagar in the North is a distance of 2051 miles. This great distance is budget by I.A.C which can transport a passenger speedily. With its net works of over 15,000 miles operated by a flat of 90 aircraft from 55 stations, I.A.C. enables the Administration, Industrialist or Tourist to travels across the country in comforts and speed. The new route batter introduced by I.A.C. enables the promotion of commerce and industry by providing facilities for over-lifting cargo. There is a link-up with important neighbouring countries—Pakistan, both West and East, Nepal and Afganistan. Night air mail services connecting the principal cities of India have also been introduced. Steady progress has been maintained in the establishment of Indian air services to distant lands. Our air lines now ply to Aden, Bangkok, Cairo, Djakarta, Dusaeldorf, Geneva, Kabul, Kandahar, London, Nairobi, Paris, Rome, Singapore, Hongkong, Tokio, Australia and Moscow. Air traffic control services, navigational aids, and the ground and point to point communication have been provided at various aerodromes. A network of radio beacons, radio ranges and radio direct-finding stations are now available to all pilots. At important aerodromes, the instrument landing system is also available to help aircraft in safe approach and landing during bad weather. Aeronautical radio facilities have been brought into operation. Seventy-eight aerodromes are controlled and operated by the Civil Aviation Department of the Government of India. A Civil Aviation Training Centre has been established at Allahabad, where pilots, aircraft maintenance engineers, aerodrome officers, control operators, radio officers and technicians are trained.

ORGANISATION OF CIVIL AVIATION—The civil aviation in India is placed in the charge of a Director-General assisted by Deputy Directors General and the functions of the Department are distributed among several directorates, each responsible for several branches of civil aviation activity. The Civil Aviation Department is at present attached to the Ministry of Communications which controls the Posts and Telegraphs Department and which utilises air transport for the carriage of mails. Indian Air Force is in the Ministry of Defence but Civil Aviation is not entirely independent of military aviation. In order to co-ordinate policy with respect to civil and military aviation and to maintain the necessary liaison, a Standing Committee has been constituted comprising officers of the Ministries of Defence and Communications who meet as necessary for the supplement of important questions of policy.

The Director General of Civil Aviation is the administrative authority for controlling all civil aviation activities in India.

AVIATION TRAINING AND FLYING CLUBS—To meet the needs of the country for trained technical personnel the Government of India is running the *Civil Aviation Training Centre at Allahabad* which provides courses in flying, aircraft maintenance engineering, air traffic control, aeronautical tele-communications and air navigation. This Training Centre at Allahabad comprises the following four wings—(1) Flying Schools (2) Aerodrome officers' Training School (3) Engineering School (4) Communication School. In addition, a Repair and Overhaul Organisation is also attached to the Centre for carrying out repairs and overhaul of the Central aircraft. Twelve subsidised flying clubs, with headquarters at Delhi, Bangalore, Bhubaneswar, Bombay, Jullundur, Lucknow (with satellite centres at Allahabad, Kanpur and Banaras), Madras, Nagpur, Patna, Barrackpore, Jaipur and Indore have been subsidized by the Government of India. These Clubs train 'A' and 'B' licence pilots. In addition to this, there are Government Gliding Centres at Allahabad Bangalore, Poona and Delhi Gliding Club with necessary training facilities. Subsidies were also given to the Aero Club of India, Aeronautical Society of India and the Aeromodellers Association, Calcutta.

AERODROMES & AERONAUTICAL TELECOMMUNICATIONS—The total number of aerodromes maintained by the Civil Aviation Department at the end of 1957 was 84—of these three are international air ports—Bombay (*Santa Cruz*), Calcutta (*Dum Dum*), Delhi (*Palam*). The aerodromes at Agartala, Ahmedabad, Patna, Bombay, Calcutta, Delhi (*Palam*), Delhi (*Safdarganj*), Madras, Tiruchirapalli, Jodhpur, Bhuj and Amritsar have been declared customs aerodromes At the end of 1957 there were 72 aeronantical communication stations in operation, providing 138 aids to radio navigation and 435 tele communication facilities.

AIR TRAFFIC CONTROL—As a member of the International Civil Aviation Organisation, India has to meet the standards laid down by that organisation in respect of aerodrome equipment and air traffic control facilities So *Air Traffic Control Organisation* has been established for the maintenance of air traffic control services for international aircraft landing and passing through the country as well as internal air services The Air Traffic Control Organisation is responsible for the safety and control of aircraft in the air and on the ground For this purpose the country has been divided into four regions with area control centres at Delhi, Calcutta, Bombay and Madras.

AIRCRAFT & PILOTS—Indian Airlines and Air India International have a large fleet of aircraft consisting Dakotas (*twin engined*), Skymasters (*four engined*), Vikings (*twin engined*), Super-Constellations, two Comets, four engined Viscounts and Herons, etc ; the most notable addition in 1957 being Vickers Viscount turbo prop aircraft It marked the launchurg of I A C into jet age This aircraft carries 44 passengers, cruises at a speed of 325 miles per hour at altitudes around 20 000 feet The number of aircraft, holding current certificates of registration at the end of Dec 1957, was 536 of which 224 held current certificates of air worthiness The number of 'A' and 'B' pilots holding licences were 868 and 636 respectively. The number of aircraft maintenance engineers holding Indian licences was 953

NIGHT MAIL—Mention must be made of Indian Airlines' operation of the unique Night Airmail system Every night four IAC aircraft fly between Bombay and Nagpur, Madras and Nagpur, Calcutta and Nagpur, and Delhi and Nagpur Letters, packets and parcels are re-distributed at Nagpur, then flown back to the four main cities For no extra charge, the Indian people thus have the fastest possible long distance postal service to all points in the country And to make full use of these aircrafts passengers can "fly with the mails" as it were at specially reduced rates

NON-SCHEDULED SERVICES—In addition to Air India International and Indian Airlines Corporation, twelve subsidised Flying Clubs and six air transport companies hold permits for the operation of non scheduled services Besides these two other aircraft companies hold permits for giving joy-rides

EXTERNAL AIRLINE ROUTES—In the field of international air transport, Air India International has made vast progress. Air-India International has achieved a large net work serving 4 continents and 26 cites of the world Air-India now operates 24,893 under unduplicated route miles In the year ending 31st March, 1958, Air-India International operated 50.66 million capacity ton miles and carried 88,312 passengers, 3.3 million pounds of cargo and 1.5 million pounds of mails. Air India's fleet now stands at 10 super-constallations and IDC-3 with 3 Boeing 707 Intercontinental Jets to be added early 1960. Regular external services are being maintained at Cairo, Rome, Paris, Geneva, London, Aden, Nairobi, Bangkok, Singapore, Ceylon, Burma, Nepal Pakistan, Afganistan, Tokio and Australia. Air Service has also been open between Delhi and Moscow in 1958.

Other Indian Airlines routes bring country's nearest neighbours within a few hours' flight, as between Delhi and Karachi *via* Jaipur and Jodhpur, Delhi and Lahore, Calcutta and Dacca-Chittagong, Patna and Katmandu in Nepal. Yet another "neighbour" service links Kandahar and Kabul in Afganistan with Karachi and Delhi or Bombay.

Progress of Civil Aviation
(*For Scheduled Services*)

	miles flown (in 000)	*passengers* (in 000)	*freight* (in 000 lb)	*mails* (in 000 lb)
1947	9,362	255	5,648	1,405
1948	12,649	341	11,975	1,583
1949	15,098	357	22,500	5,032
1950	18,896	453	80,007	8,356
1951	19,498	449	87,665	7,182
1952	19,562	434	86,038	8,377
1953	19,202	404	84,820	8 846
1954	19,798	432	86,415	10,673
1955	21,267	469	98,200	11,478
1956	23,481	559	96,231	12,686
1957	23,345	594	95,094	12,942

Air-India International's Traffic Figures

		1955-56	1956-57	1957-58
Capacity ton miles (*millions*)	..	35.242	43 567	50 657
Passengers carried	..	56 445	79,825	88,312
Mails carried (*million lbs*)	..	0.975	1 354	1.475
Cargo carried (*million lbs.*)	..	2.288	3.256	3.302

Non-Scheduled Airline Operators

Air Assam, Calcutta.
Air Survey Co. of India, Calcutta.
Associated Airworks, Dum Dum.
Darbhanga Aviation, Calcutta.
El Al Israel Airlines Ltd., Bombay
Indamar Co., Bombay, Calcutta.
Jamair, Calcutta.
Kalinga Airlines, Calcutta.

Flying Clubs

Aero Club of India, New Delhi.
Bengal Flying Club Ltd., Barrackpore.
Delhi Flying Club, Civil Aerodrome, New Delhi.
Hind Provincial Flying Club, Kanpur.
Hind Provincial Flying Club, Allahabad
Hind Provincial Flying Club, Lucknow.

Bihar Flying Club Ltd., Patna.
Bombay Flying Club, Juhu, Bombay.
Hyderabad State Aero Club, Hyderabad (Dn.).
M. P. Flying Club, Indore.
Madras Flying Club, Madras.
Northern India Flying Club, Jullundur Cantt.
Orissa Flying Club Ltd., Bhubaneswar.
Rajasthan Flying Club, Jaipur.

Gliding Clubs

Delhi Gliding Club, Safdarganj, New Delhi.
Government Gliding **Centre,** Poona.

FOREIGN SERVICES

Air Ceylon Ltd., Madras.
Air France, Calcutta.
B. O. A. C., Bombay, Calcutta, New Delhi.
Cathay Pacific Airways, Calcutta.
K.L.M. Royal Dutch Airlines, Bombay, Calcutta, Madras, New Delhi.
Pakistan International Airlines Corporation, Bombay, Calcutta, New Delhi.
Swissair (Airline of Switzerland) Bombay/Calcutta to Bangkok, Hong Kong, Taipeh, Manila, Tokio.
Pan American World Airways, Bombay, Calcutta, New Delhi.
Qantas Empire Airways Ltd., Bombay, Calcutta, Madras, New Delhi.
Scandinavian Airlines System, Bombay, Calcutta, Madras New Delhi.
Thai Airways, Calcutta.
Union of Burma Airways, Calcutta.
Middle East Airlines (*B.O.A.C. Associate*) (London *via* Beirut, Athens, Rome).

SOME IMPORTANT DATES

1911—First Official Air Mail on 18th February, 1911 flown from U.P. Exhibition grounds, Allahabad to Naini Junction by M. Picquet, a French aviator.
1911—First passenger in an aeroplane in India was Sir Sefton Branker.
1912—Jules Tyck and Baron de Carters gave India her first public flying demonstration at Calcutta (Christmas Eve).
1918—First flight from Egypt to India by Capt. Ross Smith.
1919—First Eng.-India flight by Sqdrn.-Leader McLaren & Lt. Haley.
1920—First Air-mail service was organised by Govt. of India & operated by R.A.F. between Karachi and Bombay.
1927—Imperial Airways sent first air liner to India, January, 8.
1927—Civil Aviation Department formed in India.
1928—First Flying Club in India.
1929—First regular air-mail introduced between England and India on March 30, 1929.
1930—First India-trained pilot with 'B' License was Bhagat Lal.
1932—First Indian air-line came into existence on Oct. 15, 1932 when Tata Air-lines began to operate between Karachi-Bombay-Madras.

1949—First class internal mails by air without a surcharge was introduced on April, 1949.
1953—Indian Airlines nationalised on 1st August.
1957—I.A.C. first introduced Turbo-jet plane Viscount in India.
1958—India-U.S.S.R. Airline opened by the Air India International.

5. INDIAN POSTS AND TELEGRAPHS

EARLY HISTORY—The first British postal system was introduced in 1766 by Lord Clive but this was used mainly for official purposes. During the administration of Warren Hastings, the posts were made available to the public for the first time and a regular organisation was set up in 1774 by Lord Dalhousie who created an Imperial System of post offices. He reduced the rates for carriages of letters and introduced postage stamps. Act 17 of 1837 is the earliest enactment establishing a public service in India. The Act 17 of 1854 is a landmark in the history of postal system in India, for the entire department was placed under Director-General and uniform rates were fixed for all India. The first issue of postal stamps was made in India in Sind in 1825. They were of three kinds—(*a*) design embossed on white paper without colour (*b*) blue-embossed on white paper (*c*) design embossed on vermillion wafers. The basis of authority of the existing postal system in India was Act 6 of 1898.

The honour of laying the first experimental telegraph line from Calcutta to Diamond Harbour in 1839 goes to Dr. William B. O' Shanghnessy, professor of chemistry, Calcutta Medical College. It was then the longest telegraph line in the world—21 miles with a 7,000 feet river crossing.

But it was not 12 years later than in October 1951, to be precise, that the first official telegraph line was opened for traffic between Calcutta and Diamond Harbour. The construction of long distance overhead telegraph line began in Nov. 1853 between Calcutta and Agra. The first telegraph message was sent over the circuit on March 24, 1854. Later on, this line was extended to Bombay on one side and to Peshawar on the other. Telegraph circuits were gradually extended to all parts of India till they reached 14,900 miles of wire in March 1867. Today the total mileage of overhead wires is over 8,00,000.

THE POSTAL SYSTEM—The Posts & Telegraphs Department is under the Ministry of Communications, whose control is vested with the Director-General of Posts and Telegraphs who is assisted by a Posts and Telegraphs Board under the chairmanship of the Director-General. The other members of the Board are the Chief Engineer, the senior Deputy Director-General and the Joint Secretary, Ministry of Finance (Communications Division). The Chief Engineer is the technical advisor to the Director-General on tele-communication matters, while the Senior Deputy Director-General undertakes a similar function in regard to postal and R. M. S. matters. The Department is responsible for postal, telegraph, telephone and wireless communications. In addition, it undertakes the management of P.O. Savings Bank, National Savings Certificates, Postal Life Insurance and collection of Broadcast Receiver Licence fees.

The Posts and Telegraphs organisation functions as a commercial-cum-utility department, but unlike Railways, its finances have not been separated from the general revenues of the Central Government. The working expenses as well as the interests on the capital invested in the service are deducted from the gross receipts. Out of the surplus, an outright contribution is made to the general revenues and the rest is maintained to the credit of the Department. The Department, however, reserves a rebate on such accumulated surpluses.

Territorial Units—The country has been divided into 13 territorial units, including 12 Posts and Telegraph circles and a postal circle for Delhi. In addition, there are four telephone districts in the cities of Calcutta, Bombay, Madras and Delhi. Besides, there are four administrative units on a functional basis, dealing with tele-communication developments, posts and telegraph workshops in Calcutta, Jabalpur and Bombay, telegraph and telephone stores and postal life insurance respectively.

P. & T. Circles	*Jurisdiction*
1. Postmaster-General, West Bengal	West Bengal, Andaman & Nicobar Islands, Sikkim.
2. Postmaster-General, Bihar	Bihar.
3. Postmaster-General, U. P.	Uttar Pradesh.
4. Postmaster-General, Punjab	Punjab, Himachal Pradesh, PEPSU, Bilaspur, Jammu & Kashmir, Delhi (Telegraphs only).
5. Postmaster-General, Bombay	Bombay, Saurashtra and Kutch.
6. Postmaster-General, Madras	Madras, Mysore, Travancore-Cochin, Coorg, Hyderabad (which is a sub-circle under a Director).
7. Postmaster-General, Central Circle	M. P., Vindhya Pradesh.
8. Director of Posts & Telegraphs, Rajasthan ..	Rajasthan, Madhya Bharat Bhopal and Ajmer.
9. Director of Posts & Telegraphs, Andhra ..	Andhra.
10. Director of Posts and Telegraphs, Assam ..	Assam, Manipur and Tripura.
11. Director of Posts and Telegraphs, Orissa ..	Orissa.

12.	**Director of Postal Services, Delhi**	**Delhi (postal only).**
13.	**Director of Postal Services, Hyderabad** ..	**Hyderabad (Sub-Circle).**
14.	General Manager, Calcutta Telephone District ..	Calcutta City.
15.	General Manager, Bombay Telephone District ..	Bombay City.
16.	Dist. Manager, Delhi Telephone District ..	Delhi & New Delhi
17.	Dist. Manager, Madras Telephone District ..	Madras City.

FUNCTIONAL UNITS

Additional Chief Engineer P. & T., Jabalpur	In-charge of telecommunications development (design & Research)
General Manager, Workshop	In-charge of P. and T. workshops Calcutta, Jabalpur & Bombay
Chief Controller of Telegraph Stores	In-charge of telegraph & telephone stores

PROGRESS OF POSTAL SYSTEM—The postal system was inaugurated in India in October, 1854. Next to Railways, the Posts and Telegraphs Department is the largest civil undertaking in India. Under the Second Plan, each group of villages with a population of 2,000 will have a post office within a radius of four miles. From April 1, 1953, a new policy for setting up post offices in rural areas has been evolved; it combines the criteria of population in groups of villages and distances from existing post offices.

Introduction of *All-Up Air Mail Scheme* in 1949 constituted a landmark in the history of mail-communications in this country. All letters, post cards, money orders and insured letters are carried by air wherever air transport is available and is advantageous being without any surcharge. The introduction of night air services connecting the principal cities of India, facilitated the introduction of All-Up Mail Service resulting in the abolition of the surcharge ón mails for air conveyance. The scheme was extended to inland money orders from May 1, 1951. Over 27 p.c. of the entire inland mail receive air transmission.

Urban Mobile Post Office was first started as an experimental measure in Nagpur. Later, the scheme was extended to Madras, Delhi, Bombay and Calcutta. The mobile post office visits important centres of the city at specified hours after ordinary post offices have closed for the day. It works on all days of the year including Sundays and other postal holidays.

The following are the notable progresses—

(1) The number of post offices in the country rose from 55,042 in 1956 (March) to 58,871 in 1957 (March).

(2) There is today one post office for every single village with a minimum population of 2,000.

(3) Every village with a minimum population of 500 receives a visit from the postman at least once a week.

RESEARCH AND POSTAL EDUCATION—The P. & T. Training Centre had been opened at Saharanpur on April 1951 to give intensive practical training to the operative staff and to instil in them the qualities of discipline, courtsey, punctuality, regularity, cleanliness and a spirit of service to the public The Tele-communication Research Centre had been set up in 1956, though functioning very recently

TELEGRAPH SERVICE—The telegraph service in India celebrated its centenary in November, 1953 The policy of opening telegraph offices in every town with a population of over 5,000 and every sub-divisional headquarters is being implemented *Voice Frequency Telegraph* (V F T) systems have been introduced in many places

Indian telegraph is the oldest government owned public utility in the world and it is the second largest employer in India (225,000 workers) The number of telegraph offices rose from 9,893 in 1956 (March) to 10, 052 in 1957 (March) The number of telegrams increased from 33 5 million in 1956 to 34 5 million in 1957 Indian telegraph has more than 8,67,000 miles of iron, copper, bronze and insulated wire and 10 03 000 miles of cable conductors

The Hindi Telegraph Service—was introduced in 1949 This facility is now available in about 1 145 (from the end of 1956 57) offices in the country Telegrams can be sent in any Indian language, provided they are written in Devnagri scripts Hindi teleprinters have also been introduced in some places

Printogram Service—has been introduced from 1st March, 1956 which is designed to provide a direct teleprinter service between the subscriber and the telegraph office, thus eliminating the intermediary messenger service This system is now operating in Bombay

A new class of telegram known as *flash message*, has been introduced on April 1947 for the press These telegrams receive a higher priority Another class of telegram known as *Human Life telegram*, also receives priority in transmission over all express telegrams in case of accidents, serious illness or death of a person.

Local Telegrams are accepted at all telegraph offices in India at the minimum charges of annas 6 for 8 words or less and 6 pies for each additional word

Phototelegrams are accepted for the U K U S A , Canada, Egypt, Australia, South Africa, Finland, Sweden, Belgium, Denmark, Greece, Germany, Italy, Portugal, Switzerland, San Francisco, Norway, China, Japan U S S R and France at special rates

Telegrams to follow has been introduced in case of foreign telegrams, which enables the sender who is not quite sure about the exact place at which the addressee will be found, to give various addressess at which the telegram is to be successively presented.

De Lux telegram has been re-introduced to foreign countries.

TELEPHONE—Only five years after the invention of telephone by Bell in 1876, India had a 50-line telephone exchange in Calcutta in 1881. Though India was almost one of the first countries in the world to have a telephone exchange, Calcutta was the first place to have it. Calcutta has the largest number of telephones in any single city in India. India has today only .7 telephones per thousand population as against 310 in U.S.A. Licences were granted to a private company known as Oriental Telephone Co., for the establishment of exchanges at Calcutta, Bombay, Karachi, Madras and Rangoon. All these lines, however, were taken up by the Government in 1942. The first automatic telephone was installed in India at Simla with 700 lines in 1913. At the time of partition in 1947 there were only 278 telephone exchanges and 114,922 telephones. The number of telephone exchanges rose from 5,830 (1956) to 6,202 (1957). The total number of telephones rose from 278,000 to 309,000 (1957). To facilitate telephone expansion "*own your telephone*" scheme was introduced in 1949. Under this scheme, a sum of Rs. 2,500 in Bombay and Calcutta and Rs. 2,000 in other places is realised in advance from the subscriber for a telephone connection for 20 years. The maintenance charge is Rs. 2 per month. *Own your Exchange* was introduced in 1950. Under this scheme, the Department undertakes to open a 50-line exchange if institutions, firms or individuals advance a loan of Rs. 50,000 at 2¾ per cent. interest per annum. This loan is repayable after 20 years.

In most places *message-rate system* of charges has been introduced. Under this system, a subscriber, besides paying a fixed monthly rental for the telephone, also pays for every call that he makes. This system is in operation in 21 stations.

Telecommunication Research Centre—A research organisation has been set up in 1955-56 and has undertaken number of works and has started functioning with a small staff.

Technical Training—For inparting technical training to the officers and staff of the telephone, telegraph and wireless branches of the Department, the Department has set up fully equipped technical training institution at Jabalpur.

The number of *trunk calls* made during 1955-56 was 186 lakhs as against 44 lakhs in 1948-49.

Telephone Industries—The Indian Telephone Industries Ltd.. Bangalore, owned jointly by the Government of India, Government of Mysore and the Automatic Telephone and Electric Company Ltd., of England, manufacture telephones, automatic telephone lines and various types of carrier equipments

Printer-gram Service—was intruduced for the first time in the country in 1956-57 as a part of the programme to modernise the tele-communications services. It was introduced in Bombay in May 1956.

Wireless—In addition to telegraph and telephone facilities, India has a wireless communication system, which serves several useful purposes. Wireless stations maintain contact between fixed points as a standby to telegraph system, in case of the breakdown of the latter. Stations at coastal places maintain contact with ships at sea and also aircraft flying over the sea. Such stations have been established at Bombay, Calcutta, Madras and also at some minor ports. Meteriological stations exchange weather data with ships and also with other countries. Monitoring stations have been established at Jabalpur, Calcutta, Delhi and Bombay The number of radio telegrams handed by P & T department wireless stations during 1956-57 was 288,000 as against 365 000 in the previous year The total number of radio receiver licences increased from 1,091, 991 in 1955-56 to 1,284,041 in 1956 57— an increase of 17 6 p c

OVERSEAS COMMUNICATIONS SERVICE—The Overseas Communications Service is responsible for the working of radio telegraph, radio telephone and radio photo service between India and other countries These services have four gateway centres at Bombay Calcutta Delhi and Madras for handling international communication Since independence there has been phenomenal increase in the external radio communication services between India and foreign countries The first foreign electrical communication between India and other countries was established by an undersea cable connecting Bombay with London In 1927 first radio telegraph link was opened between Bombay and London The private Company in India *(Overseas Communications Service)* was nationalised in January 1947 It now functions under a Director General with two main branches (Traffic and Engineering) and four gateway centres at Bombay Calcutta Delhi and Madras

This Service has now 47 direct radio services which link India with foreign countries

The Overseas Communications Service is a separate department headed by a Director General Overseas Communications Service is under the Ministry of Communications

Its functions are provision operation and development of all facilities for communications between India and outside world

Following classes of services are carried out by the Overseas Communications Service—

(1) Radio photo service
(2) Wireless Telegraph service
(3) Radio telephone service
(4) Press newscast service
(5) Submarine Cable Telegraph service
(6) Wireless monitoring service at Bangalore, Bombay, Calcutta Delhi and Jabalpur
(7) Inland photo telegram service was inaugurated for the first time between Bombay and Delhi on January 26, 1955

POSTAL STATISTICS 1956-57

	1956	1957
Post offices	55 042	58 871
Telegraph Exchanges	5 830	6 202
Telegraph offices	9 893	10 052
Air mail routes	18 959 miles	19 416 miles

		1955-56		1956-57
Surplus amount ..	Rs	3 47 crores	Rs	6 32 crores
No of postal articles carried		2 997 million		3 262 million
No of telegrams		33 8 million		34 5 million
No of Trunk Calls ..		18 6 million		20 8 million
Revenue ..	Rs	50 6 crores		56 8 crores
Expenditure ..	Rs	47 20 crores	Rs	50 51 crores
Air mail routes		18 959 miles		19 416 miles
Weight of mails by inland air routes		10 139 947 lb		8 628 781 lb
Value of Postage Stamps issued .	Rs	26 02 crores	Rs	26 35 crores
No of inland money orders		65 million		67 4 million
No of Postal orders		3 458 742		3 192 580
Value of Postal orders	Rs	1 76 30 608	Rs	1 78 15 029
No of V P articles		8 981 000		8 970 271
Value of V P articles	Rs	4 crores	Rs	3 5 crores
No of insured articles		4 093 700		4 67[illegible]
No of public complaints	Rs	136 40 crores 434 597		133 18 crores 466 184

POSTAL LANDMARKS

1825—1st Indian postage stamp issued at Karachi for Sind only

1830—First overland post between England and India established when steamer '*Hugh Lindsay* made the first voyage from Bombay to Suez

1840—P & O obtained charter for conveyance of mails between London to Suez *en route* to India

1851 First Govt Telegraph line opened between Calcutta and Diamond Harbour

1854 1st postage stamp on all India basis issued on 1st October

1865—First telegraph line opened between England and India 27 Jan 1865

1870—G P O Calcutta was opened and occupies the site of the old fort

1871—V P system established

1877 V P system started

1880— M O system introduced

1885—Postal Savings Bank started

1888—M O system started

1911—First official Air Mail flight on 18th February when 6 500 letters were flown from Allahabad to Naini Junction

1929—U K India Air Mail Service started 4th April 1929

1931 New Delhi inauguration commemoration stamp issued

1935 Silver Jubilee of King George VI Stamp first issued showing various modes of transport of mails

1942 Airgraph Service started, February 2 1942

1943—Photo Telegram Service introduced 3rd June 1943

1946—Two Pice Post Card re-introduced from 1st July

1947 Govt of India purchased Overseas Telecommunications Service Jan 1, 1947

1949—Telegraph Transmission in Hindi in Devnagri script introduced in June, 1949

1954 Indian Postage Stamp Centenary celebration on 1st Oct and International Postal cum Philatelic Exhibition

1957— Postage Stamps and postage stationery in decimal coinage issued from 1st April 1957

NEW POSTAGE STAMPS SINCE INDEPENDENCE

1947—India issues three *Jai Hind* stamps commemorating Indian Independence depicting the Asoka capital, National Flag and an aircraft

1948—Commemoration stamp for the first flight of India's first external air service from Bombay to London

1948—A set of Gandhi memorial stamps in four values on the 1st anniversary of India's Independence (15th August, 1948)

1949—A set of stamps for 75th anniversary of Universal Postal Union

1949—New stamps representing the illustrations of Ajanta Trimurti Konark Horse Sanchi Stupa Kandaraja Mahadeva Temple and Bhuvaneswar Temple Buddha Gaya Temple Tomb of Adil Shah of Bijapur Amritsar Golden Temple Tower of Chittoragraph, Red Fort of Delhi Taj Mahal of Agra Qutab Minar of Delhi etc on Independence Day

1950 Independence stamp commemorating the coming into operation India's new constitution (26th Jan)

1951 One stamp representing a pair of Stegodon Ganesa an extinct species of modern Indian elephant for the centenary of Geological Survey of India

1951 Issue of two stamps depicting a torch against the southern coast line of Asia on the occasion of first Asian games in New Delhi March 4 1951

1952—A new series of stamps bearing the portraits of saints and poets of India

1953 —Two Everest conquest commemoration stamps (2nd Oct)

1953 One stamp issued to commemorate Indian Railway centenary on 16th April

1953—Two stamps on the centenary of Indian Telegraphs on 1st Nov 1953

1954—A set of four stamps commemorating centenary of the 1st issue of Indian stamp

1954—2 anna stamp commemorating U N Day (24th Oct)

1954—2 anna stamp on the occasion of 4th World Forestry Congress at Dehra Dun (Dec)

195 Five Year Plan series of postage stamps on 26th Jan

1956 Two Buddha Jayanti stamps of two annas and fourteen annas issued on 24th May

Tilak centenary stamp on (23rd July)

1957—Two stamps to commemorate the centenary of India's first struggle for freedom (*Sepoy Mutiny*)

1957 One stamp on the opening of the 19th International Red Cross Conference at Delhi with picture of Henri Dunant founder of the Red Cross

A set of three postage stamps for Children's Day

One stamp for the 50th year of steel industry in India

Three different stamps for the centenary year of Bombay Calcutta and Madras Universities

1958—New postage stamp valued at 8 nP

Postage stamp to celebrate childrens day (Nov 11), 15 nP

—Bipin Pal centenary stamp on 7th Nov 15 nP

—J. C Bose centenary stamp

INDIAN SHIPPING

POSITION OF INDIAN MERCANTILE MARINE—India has about 3,500 miles of coastline extending international trade with the East and the West, a vast population to 'feed' and good prospects of industrialisation. She fully realizes the need of a powerful merchant navy able to compete in speed, carrying capacity and efficiency of service with the best mercantile marines of other nations. India's shipping industry is insignificant when compared to those of great maritime powers. The gross tonnage of Indian shipping which was 634,000 in July 1958—hardly 0.52 p.c. of world tonnage, is now about adequate to carry the entire coastal ; about 40 p.c. of the adjacent and about 5 p.c.—a distressingly small proportion, of the over-seas trade. Her coastal vessels carry about 2 million passengers a year, while about 200,000 overseas passengers travel by Indian ships. The *Shipping Policy Committee of* 1947 laid down the following objectives for Indian shipping with a view to secure a tonnage of two million in the near future, thereby securing for Indian shipping—(1) 100 per cent of the coastal trade of India, (2) 75 per cent of Indian's trade with Burma, Ceylon and other neighbouring countries, (3) 50 per cent of India's overseas trade and (4) 30 per cent of the orient's trade, formerly carried by Japanese, German and Italian vessels. Plan envisaged a rise in India's shipping tonnage from 390,707 GRT to 600,000 GRT by 1956.

The Government of India, by their resolution dated July 12, 1947, fully endorsed the above view of the Committee. They agreed that the definition of Indian Shipping should be shipping owned, controlled and managed by Indian nationals. They also laid down that following conditions should qualify any shipping company for treatment as "Indian shipping companies" :—(a) The steamers should be registered at a port or ports of India, (b) At least 75 p.c. of the shares of the companies should be held by Indians in their own rights, (c) All the directors should be Indians, (d) Managing agents, if any, should be Indians.

Further, steps were taken to reserve the costal trade of India for Indian ships only and a system of statutory licensing was introduced under the Control of Shipping Act, 1947, to give effect to the policy on coastal reservation. Some of the principal steps taken by the Government to encourage the development of Indian shipping are detailed below : —

(1) Reservation of coastal shipping.
(2) Grant of loans.
(3) Sale of ships built at the Hindustan Shipyard at the United Kingdom parity price.
(4) Allotment of Government owned and/or controlled cargo.
(5) Inclusion of clauses in trade agreements to ensure a proportion of cargo to Indian ships.

(6) Establishment of shipping services with the U.S.S.R. and Poland.
(7) Sponsoring admission to international Conferences.
(8) Establishment of State shipping Corporations.
(9) Establishment of a Directorate.
(10) Administration of labour.
(11) Training of personnel.

FINANCIAL HELP FOR SHIPPING—The entire allotment of Rs. 37 crores given by the Planning Commission for the Second Plan period, was spent in the first year of the Plan 1956-57. This resulted in an addition of 180,000 GRT in the Indian fleet. In 1957-58, the Indian shipowners due to extreme foreign exchange difficulties took the bold step of purchasing ships on a "self financing basis" under which the prices of the vessels would be paid out to the foreign sellers in annual instalments from the foreign exchange earnings of those vessels. Another important step taken by the government was the setting up of non-lapsable Shipping Development Fund, from which loans could be advanced to shipping companies for the acquisition of tonnage. The Fund has been created with an initial capital of one crore to which annual contributions will be made from the Consolidated Fund of India in such amounts as may be determined by the Government from time to time. All repayments by the fund and the interest will be credited to the Fund. Another important step is the securing of Yen Loan from Japan for the acquisition of ships. Five billion yens has been earmarked for this purpose from out of the yen credit which government has recently been able to obtain from Japan. The government has also made two tax concessions in 1958-59—exemption from wealth tax and grant of a development rebate of 40 p.c.

SHIPPING CONTROL DEPARTMENT—With the reshuffle of Ministry, a minister of shipping has been appointed for the first time. The Shipping concerns several ministries: Transport Production, Commerce and Industry, Defence, Works, Housing and Power. So, Directorate-General of Shipping has been set up in Bombay in 1949. It is the central body of the Government of India controlling the whole problem of shipping in the country. Semi-Government shipping corporations, maritime conventions, seamen's welfare, nautical surveys, licences for deep-sea navigation and light houses are among the several maritime subjects which are dealt with by the organisation. The three principal officers of the Mercantile Marine Department at Bombay, Calcutta and Madras will function under the jurisdiction of the Director-General. The function of the Director-General includes the implementation of the Government's policies with regard to the development of India's merchant navy and the co-ordination of the activities of various ports.

COMMITTEES—(1) **Consultive Committee of Shipping Interest**—With a view to ensure better understanding and co-operation between the Government of India, the country's export trade and the foreign shipping interests operating in India, the above additional committee has been founded in 1955 with 7 members, being 4 from overseas shipping conferences, 2 from Indian National Steamshipowners' National Association and one from the export trade sphere.

(2) **Consultive Committee of Shipowners**—With a view to bringing about better liaison between the Government and the Indian shipping industry, an advisory body called Consultive Committee of Shipowners has been constituted.

(3) **Shipping Co-ordination Committee**—has been recently set up by the Government of India to secure close liaison between the appropriate Ministries of the Government of India on the one hand and Indian shipping interests on the other. Its main functions will be to advise government on the best and the most economical shipping arrangements possible for movement of government-controlled cargoes to make effective use of available Indian tonnage.

NEW MERCHANT SHIPPING ACT—This Act has been passed in 1958. The Act, among other things, provides for the first time in the history of independent India, for the opening of a register of Indian ships. It also provides for the setting up of a *National Shipping Board* and a *Shipping Development Fund* and consolidateds the law relating to Merchant Shipping. The new Act fixes 75 per cent Indian capital and 25 per cent foreign capital if a ship is to be called an Indian ship and be eligible to be brought under the Indian Register.

CATEGORIES OF INDIA'S MARITIME TRADE—India's maritime trade today may be summarised in the following categories :—

Pure coastal trade, originating or terminating at ports on the coast of the Union of India and the *non-coastal trade, i.e.*, the balance of the maritime trade with other countries of the world which would be styled as overseas trade. This latter may further be divided into : (1) Indian Ocean Trade ; (2) Atlantic Ocean trade ; (3) Atlantic or Pacific Ocean Trade. The first of these may be further divided into Western, *i.e.*, comprising South and East Africa, Red Sea and Persian Gulf, and Eastern including Burma, Ceylon, Malaya, China, Japan and Australia.

COUNTRY CRAFT—The importance of country craft in the economics of India's water transport cannot be ignored. The sailing vessel, though small in size, carries the bulk of the cargo between neighbouring ports at a relatively cheap cost and plays a vital part in serving as a feeder to industry. The Sailing Vessels Committee appointed in 1948-49 to enquire into the conditions of the industry, has submitted recommendations for the rehabilitation of this industry.

PROGRESS OF INDIAN SHIPPING—INLAND AND OVERSEAS—The all-out efforts to increase Indian tonnage has been that the Indian-owned tonnage which stood at 517,000 tons of the beginning of 1957 was raised to 587,000 tons at the end of March 1958. In addition, a number of ships totalling 158,000 GRT which have been ordered for construction in the Indian and foreign yards would be delivered before the end of Second Plan.

The Indian-owned tonnage employed on the coast as on 31st March, 1957 consisted of 81 vessels of total g.r.t. of 232,167.

The Indian-owned tonnage employed in various overseas trades as on 31st March, 1957 consisted of 43 vessels of a total g.r.t. 289,273 as against 36 vessels with an aggregate g r t. of 239,953 in 1956.

In India/U K./Continental Services, Scindias, India Steamship Co. had in employment at the end of March 1957, 30 ships of about 208,329 g r t Similarly Eastern Shipping Corporation were able to ply two ships in the India/Far East/Japan trade.

A new shipping service between India and Black Sea ports was introduced in April, 1956 under the agreement between India and U S S.R The agreement provides for equal tonnage participation by both the parties On the Indian side three Indian shipping companies—Scindias, India Steamship and Bharat Line agreed to operate in the service Agreement was also concluded with the Polish Government for starting a shipping service between India and Poland.

For the year ending 31st March, 1957, two ships of 4,600 g r.t. were delivered to the Scindias and one ship of 5,600 g r t to the Eastern Shipping Corporation by the Hindustan Shipyard.

Almost the entire provision of Rs 37 crores made in the 2nd Five Year Plan for shipping was utilised by 31st March, 1957 by way of grant of loans to private shipping companies or investments in the Government Shipping Corporations

Tankers—During March/April, 1956 the first Indian tanker was acquired in the private sector and renamed *Jogiyoti* It was acquired by the Great Eastern Shipping Co and is now plying under charter to Stanvac Second tanker was purchased in the public sector by Western Shipping Corporation in 1956 It is under charter to Burma Shell

Eastern Shipping Corporation has now seven vessels. Western Shipping Corporation was registered in 1957 It trades in India/Poland, Persian Gulf and India/Red Sea

COASTAL AND NEAR TRADES—Our coastal trade has been reserved to national ships since August 1950 While all coastal cargo is now carried by Indian ships the Government also negotiated with foreign shipping interests and ensured for Indian Shipping a fair share of the Near Trades, i e the trades with Burma, Ceylon and Pakistan The position in this respect is now as follows—(1) *The Coastal Trade* governed by the Indian Coastal Conference with 14 member liners, all Indians, (2) *The India-Burma Trade* governed by the India Burma Conference with five member liners, 3 being Indian and 2 being British Trade is shared half and half between Indian and the British lines The trade with Ceylon and Pakistan is governed by two conferences India Ceylon Conference and India-Pakistan-Burma-Ceylon Conference, this latter being more concerned with inter Burma Ceylon Pakistan trade These Conferences also have each a membership of 5 liners, of which 2 are British and 3 are Indian.

OVERSEAS SHIPPING—It is estimated that at present only 5 to 6 per cent of the import and export cargo are being handled by Indian ships The Indian Companies now operating in foreign trades have total gross tonnages of 289,273 upto March, 1957 with 43 vessels. Though the Government has endorsed the policy of Indian shipping carying at least 50 per cent of India's trade in international waters, there are number of hurdles which Indian shipping will have to cross for carrying 50 per cent of Indian overseas trade. The hurdles are—(1) a large number of Liner Conferences dominate these trades. Entry into such Conferences is not an easy matter. Indian Lines have not yet been admitted to membership of a number of Conferences in the way-trades on the main route between India and U.K. and India and the Continent, such as Colombo-U.K., U.K.-Colombo, Colombo-Continent, U.K.-Aden and U.K.-Port Said Conference. (2) Indian Shipping Companies will have to expand their tonnage on different lines where they do not go at present. (3) Passenger services should be opened with modern amenities. The Government of India has been helping Indian shipping companies to become full members of the Shipping Conferences controlling the India-U.K.-Continent, India-North America, India-Australia and India-Malaya trades. In order to facilitate the entry of Indian shipping into all important overseas trades and to assist in solving the difficulty experienced by Indian shipping companies by raising the necessary capital, the Government announced their scheme for the setting up of Shipping Corporation on a state-cum-private ownership basis. *The Eastern Shipping Corporation* was registered in March 1950 with an initial capital of Rs. 20 million, 51 per cent of its shares are owned by the Government. This corporation now operates six ships in all with 42,202 gross tons. This corporation is plying on the India-Australia, India-East Africa and India-Malaya services *Bharat Lines* has been regularly running in India-Persian Gulf route. So long the *India Steamship and Scindias* had concentrated on the U.K.-Continent trade ; on July 1, 1958 Scindias inaugurated India-U.S. cargo service which will be maintained with four newly built fast vessels. Necessary assistance was also given to Indian shipping companies for acquisition of additional tonnage by furnishing information regarding availabilities and arranging liberal release of foreign exchange. Government is also using its good offices to ensure that Indian companies operating in the overseas trades get their fair share of cargoes.

INDIA AND THE CONFERENCE LINES—When after Indian independence India entered into overseas trade, few people knew the struggle which Indian companies had to encounter in order to get their legitimate share in India's trade. A layman would perhaps feel that a shipping company is at liberty to ply its ships wherever it chooses. But in practice, it is not so. There are *Shipping Conferences* for different trades to which Indian shipping companies must be full members before they can participate in the foreign trade. These Conferences are exclusive foreign bodies which would not allow an outsider to come in and have the due share in the trade. But after prolonged struggle, the Indian companies have been admitted into Conferences whereby they are enabled to operate on the trade freely with due regard to rules, regulations, restrictions, etc. These Conference Lines cover trade between (1) India and U.K., (2) India and U.S.A. and North Atlantic Ports, (3) India and Australia, (4) India and the Continent. The oldest and the most established of these Conferences is the India-U.K. Conference.

Besides these four principal overseas conferences, there are shipping conferences for trades between India and Far East and Japan, India and South America, India and Persian Gulf and India and African Coasts. An institution which is not a full-fledged conference is called *Rate Agreement.* Rate Agreement exists for the trade between Calcutta and Port Said, Eastern Mediterranean and North African Ports whereby parties to the Agreement agree to quote same rates and follow uniform shipping practices.

Indian Coastal Conference—came into existence in the beginning of 1951 which now consists of 14 Indian companies full members.

New Conferences—In 1951, the following four Conferences have also come into existence with a view to covering the trades with Burma, Ceylon and Pakistan—(*a*) Pakistan-India-Burma-Ceylon Conference, (*b*) India-Burma Conference, (*c*) Burma-India Conference, (*d*) Burma-Ceylon Conference.

TRAINING FACILITIES—To train up Indian boys as executive officers and marine engineers for the Indian merchant navy of India, as the second line of defence in the party, facilities are provided by the training ship *Dufferin* in the Bombay Harbour and at the Directorate of Marine Engineering Training respectively. Post-sea training is given at the Nautical and Engineering College, Bombay and also at the Marine Engineering College at Calcutta. Two training ships, *Bhadra* at Calcutta and *Mekhala* at Visakhapatnam, train about 1,000 ratings annually. *Bhadra* takes candidates for training from Bengal and adjoining areas while *Mekhala* trains recruits from other areas like Madras, Bombay and Visakhapatnam. At Navlakshi in Saurashtra, a third training establishment for ratings has been set up to train 600 boys annually. There has been recently established a Dockyard Apprentice School inside the Dockyard at Bombay for Marine Engineering, Electrical Engineering, Naval Architecture Training, etc. For the training of Indian boys to marine jobs, West Bengal Government have opened in 1949 a training school under Calcutta Port Commissioners. From the middle of 1950, Government of India have taken over *Lady Fraser* and *Andrews* from Calcutta Port Commissioners, to convert them as training vessels.

The *Radar Trainning Centre,* the first of its kind in India, was opened under the auspices of the Nautical and Engineering College in October 1953.

With a view to reducing the shortage of trained life boatmen and meeting the longfelt need for providing facilities for such training, a *Lifeboat Training Centre* has been established in Bombay on 12th April, 1956.

CREW EMPLOYMENT—To regularise employment of Indian crews on board vessels at Indian ports, the Government have set up in 1955 Steamers Employment Boards, one in Calcutta and one in Bombay. The principal objectives of these two Boards are—(1) to ensure or square deal between the Indian crew and their employers, (2) to see that more and more the trained Indian crews are absorved into services by shipping companies and (3) to regularise procedure of employment of crew and to create a long line of really efficient, medically fit, first class Indian crews.

SHIP BUILDING—The idea of reviving ship building and establishing a modern ship building yard in India was first mooted out by the Scindia Steam Navigation Company Ltd., in 1919. During the World War II, Scindias pioneered the project for establishing a ship building yard in India. In June 1941 the foundation of the shipyard was laid at Visakhapatnam. The keel of the first ocean-going vessel of 8,000 tonner steamship *Jala Usha* was laid in June 1946 and it was launched in March 1948. In acordance with the policy of establishing nation-building industries and projects in the public sector and because of the un-economic nature of ship-building industry for private enterprise that the Government of India took over in March 1952 the shipyard at Visakhapatnam The shipyard is now owned and operated by a Government-sponsored company, the *Hindustan Shipyard Private Limited* in which two-thirds of the capital is held by the Government of India and the remaining one-third by the Scindia Steam Navigation Company Ltd. The shipyard is now equipped with four large shipways and adequate workshops and jetty.

The Hindusthan Shipyard has undertaken the construction of modern Maieform design ships propelled by engines, as distinct from the old 'Jala-type' ships which were being built by the Scindias. The shipyard has so far built a total of 19 ocean-going vessels, besides smaller crafts of various descriptions.

Tanker Fleet—A beginning has been made in the formation of a nucleus of a tanker fleet on the Indian Register by the purchase of a second-hand tanker *Bianca* (8,208 gross tons) by the Great Eastern Shipping Co. Ltd, Bombay. It is also proposed to acquire 2 or 3 more tankers by the Government during the Second Plan period.

BANKS IN INDIA

INDIAN BANKING SYSTEM—India's banking system is one of the most highly developed aspects of Indian economy.• Banking is operated along both indigenous and western lines. Scheduled banks which represent the western type of banking, tend to be cencentrated in the five States of Bombay, West Bengal, Uttar Pradesh, Madras and Delhi, where major commercial and industrial centres are located Branch banking and unit banking have developed side by side. Unit banks are typically small and together control only a small part of India's total banking business.

Indian banking system has now emerged from a period of consolidation to a period of expansion. The Imperial Bank of India has now been nationalised as the State Bank of India in order to fill the vacuum in the supply of institutional credit to agriculture and rural industries. New institutions have been planned to supplement the existing agencies of credit, such as, the setting up of the Industrial Credit and Investment Corporation of India with the assistance of the World Bank and with the participation of private capital from U.K. and the U.S.A., under the auspices of the Government of India a National Industrial Development Corporation has also been established to finance new industries, there are also now regional industrial finance corporations in 12 States.

With the Reserve Bank at the apex, the Indian banking system comprises State Bank of India, Indian Scheduled Banks, Indian non-scheduled banks, Indian co-operative banks and foreign banks. Reserve Bank's control is being steadily strengthened over these institutions with a view to establishing sound banking practices.

The modern banking system in India began with the British Agency houses established at Bombay and Calcutta in the 18th century. Second step was the establishment of three presidency banks at Calcutta, Bombay and Madras in the 19th century. These presidency banks were amalgamated into the Imperial Bank of India in 1921 by a special Act, which has now been converted into the State Bank of India. The next stage was the starting of the Reserve Bank of India in April, 1935.

There was no comprehensive legislation regarding joint-stock banks in India until the passage of the Banking Companies Act which came into force on the 16th March, 1949 and now extends to the whole of India. It does not however apply to co-operative banks.

The Banking Companies Act of 1949 centralises all supervision as well as control over the banks in the hands of the Reserve Bank of India. The main duties imposed upon the Reserve Bank in this respect may be classified as follows: (*a*) Supervision and inspection of banks, (*b*) the licensing of banks and control over opening of branches, (*c*) the examination and sanction of schemes of arrangement and amalgamations, (*d*) the liquidation of banking companies, (*e*) the receipt and scrutiny of prescribed returns and (*f*) advising banks generally and helping them in times of emergencies.

Under the Indian Banking Companies Act of 1949, the business which a banking company may transact has been defined, and the minimum paid up capital and reserves, varying with the geographical coverage of a banking company, have been prescribed. The minimum paid-up capital and reserves required of a banking company having only one office situated outside the city of Bombay or Calcutta, have been fixed at Rs. 50,000. A banking company is required to use as part of its name the word 'bank,' 'banker' or 'banking' and a non-banking company is prohibited from using any of these words in its name.

CLASSES OF BANKS IN INDIA—The banks in India are generally classified under the following heads—(1) Reserve Bank of India, (2) Indian banks comprising (*a*) State Bank of India and other Indian Scheduled banks (*b*) Indian non-scheduled banks i.e., Indian joint stock banks (including State owned and State-controlled banks) other than those included in the Second Schedule to the Reserve Bank of India Act and (*c*) Indian co-operative banks registered under the laws of the States where they are situated and (3) Foreign banks comprising scheduled and non-scheduled banks whose registered offices are located outside the Indian Union.

Scheduled Banks—Banks which carry on the business of banking in India and which have (*a*) paid-up capital and reserves of an aggregate, real or exchangeable, value of not less than Rs. 5 lakhs (*b*) are either companies as defined in 3 of the Indian Companies Act, 1956 or corporations of companies incorporated by or under any law in force in any place outside India or institutions notified by the Central Government in this behalf and (*c*) satisfy the Reserve Bank that their affairs are not being conducted in a manner detrimental to the interest of their depositors, are eligible for inclusion in the Second Schedule to the Reserve Bank of India Act, 1934 and when so included are known as *Scheduled Banks*. The Scheduled Banks are further classified into (*a*) Indian scheduled banks (class A 1), *i.e.*, banks having their registered offices in the Indian union and (*b*) foreign scheduled banks, *i.e.*, banks having their registered offices outside the Indian Union, which specialise in the finance of foreign trade

Non-Scheduled Banks—Non schedule banks are banking companies other than those included in the Second Schedule to the Reserve Bank of India Act The non-scheduled banks have been classified into four classes A 2 Banks or banks which have paid-up capital and reserves of Rs 5 lakhs and above, but which have not been included in the Second Schedule to the Reserve Bank of India; B Banks or banks having paid-up capital and reserves between Rs. 1 lakh and Rs. 5 lakhs each, C Banks or banks having paid-up capital and reserves between Rs 50 000 and Rs 1 lakh; and D Banks or banks having paid up capital and reserves of less than Rs. 50,000.

Co-operative Banks—comprise State and central co-operative banks and registered non agricultural (urban) co-operative credit societies with limited liability, having a minimum paid-up capital and reserves of Rs. 1 lakh. They are sub-divided into two classes namely 'A' banks or banks with capital and reserve of Rs 5 lakhs and above and 'B' banks or banks with capital and reserves ranging between Rs. 1 lakh and Rs. 5 lakhs.

FINANCE, INVESTMENT, CREDIT CORPORATIONS—Besides the above classes of Banks, Industrial Finance Corporation of India, State Finance Corporation and Industrial Credit and Investment Corporation and Industrial Credit and Investment Corporation have come into existence for the development of industries through banks. The details of these classes of banks are given below—

(1) *Industrial Finance Corporation of India*—In March 1948 the Government established *Industrial Finance Corporation of India* for the purpose of aiding private enterprise through long and medium term credit to qualified establishments. The I.F.C. as established under Industrial Finance Act is a body corporate which can sue and be sued and is to operate on business principles. The Corporation's paid-up capital is Rs. 5 crores. Shares are guaranteed by the Central Government as to principal and as to a minimum dividend currently set at 2½ p.c. In no event may dividends exceed 5 p.c. The I.F.C. funds for aiding private enterprises come from its share capital and reserves. It may also obtain further funds by issuing bonds and debentures upto five times the paid value of its

share capital and reserves and by accepting deposits from the public for a period of not less than five years upto a total of Rs. 100,000,000. To obtain foreign currency, the I.F.C. may borrow from the International Bank of Reconstruction and Development. I.F.C. may only assist public limited companies or co-operatives which are incorporated and registered in India and which are engaged in the manufacture or processing of goods, in mining, or in the generation and distribution of power.

(2) *State Finance Corporations*—In 1951 the State Financial Corporations Act was passed; this was in the nature of an enabling legislation providing for the establishment of financial corporations by State Governments for meeting term credit needs of such industries as were located in their respective territories. Such Corporations are now functioning in all but three States, *viz.*, Madras, Mysore and Jammu & Kashmir. In Madras, however, the Madras Industrial Investments Corporation Ltd., functions on the line of a State Financial Corporation. Although the Central Government will have no direct control, both the Reserve Bank and the Industrial Finance Corporation will provide part of the capital and appoint some of the directors of the State Corporations. Unlike the Industrial Finance Corporation, the State Corporations permit the public to subscribe upto 25 p.c. of the total shares. The purpose of the State Corporation is to supplement the activities of the Industrial Finance Corporation by providing to small establishments services similar to those extended by the latter to large enterprises.

(3) *The Refinance Corporation for Industry Private Ltd.*—was set up on June 5, 1958 and was registered under the Indian Companies Act, 1956 with an initial issued capital of Rs. 12.5 crores contributed by the Reserve Bank (Rs. 5 crores), the State Bank of India (Rs. 2.30 crores), the Life Insurance Corporation (Rs. 2.50 crores) and 14 large scheduled banks (Rs. 2.70 crores). The Government of India have agreed to place with the Corporation a sum of about Rs. 26 crores. The total resources of Rs. 38.5 crores available to the Corporation will be utilised to provide re-lending facilities against medium-term loans granted by the member banks to medium-sized units in the private sector. Loans by banks must be for the purpose of increasing production, primarily in industries included in the Second Five-Year Plan or such other Plans as may succeed it.

(4) *Industrial Credit and Investment Corporation*—The object of the Corporation is to assist industrial enterprise within the private sector. The Corporation was registered as a private limited company on Jan. 5, 1955. The authorised capital is Rs. 25 crores consisting of five crores in ordinary shares of Rs. 100 each and Rs. 20 crores in unclassified shares of Rs 100 each. Of the Rs. 5 crores, Rs. 2 crores is to be taken by Indian Banks, insurance companies and directors and their friends and associates. The American investors are taking up Rs. 50 lakhs, U.K. subscribers are expected to take Rs. one crore and Rs. one and half crores is offered for public subscription in India. The Government of India is to advance to the Corporation Rs. 7½ crores, free of interest repayable in 15

equal annual instalments. World Bank is to lend 10 million dollars in foreign currencies.

(1) RESERVE BANK OF INDIA

The Reserve Bank of India came into existence on April 1, 1935 on the model of leading foreign central banks of the time. The Bank was originally constituted as a shareholders' bank with a share capital of Rs. 5 crores, divided into 5-lakh fully paid-up shares of Rs. 100 each. The entire share capital was owned by private shareholders with the exception of shares of the nominal value of Rs. 2,20,000 which was allotted to the Central Government on Sept. 3, 1948. The Reserve Bank was converted into state-owned institution by the Reserve Bank (Transfer to Public Ownership) Act, 1948.

The general superintendence and direction of the Bank at present is vested in the Central Board of Directors, consisting of 15 members, namely, the Governor and three Deputy Governors appointed by the Central Government, Four Directors in terms of s. 8 (1) (b), six Directors under s. 8 (1) (c) and one Government official under s. 8 (1) (d) of the Act. For each of the four regional areas of the country, there is a Local Board with headquarters at Bombay, Calcutta, Madras and New Delhi. Local Boards consist of five members appointed by the Central Government. The functions of Local Board are to advise the Central Board on such matters as may generally or specially be referred to them and to perform such duties as the Central Board may by regulations delegate to them.

Main Functions of the Bank—The primary function of the Reserve Bank is to regulate the monetary system of the country so as to promote the maintenance of economic stability and to assist the growth of the economy within the frame-work of the general economic policy of the Government. According to the preamble to the Reserve Bank of India Act, 1934, the main function of the Bank is "to regulate the issue of Bank notes and the keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage". The regulation of the monetary mechanism comprises the control of the currency, banking and credit system of the country. For this purpose, the Bank is given the sole right of note issue and it also acts as banker to the commercial banks and to some other financial institutions including State co-operative banks, holding custody of their cash reserves and granting them accommodation in a discretionary way. For the performance of its duties as the regulator of credit, the Bank possesses not only the usual instruments of general credit control, such as, bank rate, open market operations, and the power to vary reserve requirements of banks but also extensive powers of selective and direct credit regulation under the Banking Companies Act, 1949. Another important function of the Bank, and historically the oldest, relates to the conduct of the banking and financial operations of the Government. The Bank has also an important role to play in the maintenance of the exchange value of the rupee in view of the close inter-dependence of international trade and national economic growth and well-being. For the performance of this function, the Reserve Bank has the custody and management of the country's international reserves. It also exercises control over payments and receipts for international transactions in conformity with the trade control which is operated by Government.

The Bank now performs a variety of developmental and promotional functions. The Bank's responsibilities comprise, in addition to the traditional regulation of credit, the development of an adequate and sound banking system for catering to the needs not only of trade and commerce but also of agriculture and industry. Bank has also taken the initiative for widening the facilities for industrial finance

Bank collects data on the operations of commercial and co-operative banks, on balance of payment, company and Government finances and security markets and the statistics and analyses based on them are published periodically. Bank brings out every month a Bulletin and annually a number of reports reviewing general economics, financial and banking developments, including Bank's operations and policies.

LIABILITIES AND ASSETS OF RESERVE BANK OF INDIA

(i) Issue Department

(In Lakhs of Rupees)

30th June	*Notes held in Banking Dept.*	*Notes in circulation*	*Total liabilities (total notes issued) or Assets*	*Gold coin & bullion held in India*	*Foreign Securities*
1950	36,61	1 168,53	1,205,14	40,02	638,15
1951	34,84	1,257,48	1,292,32	40,02	678,15
1952	34,40	1,129,48	1,163,88	40,02	583,15
1953	38,47	1,136,32	1,174,78	40 02	603,15
1954	41,08	1,172.03	1,213,12	40,02	653,15
1955	31,78	1,309,76	1,341,55	40,02	652,05
1956	28,27	1,474,67	1,502,94	40,02	646,55
1957	39,50	1,542,17	1,581,67	117,76	412,52

30th June	*Total Gold coin & bullion & foreign securities*	*Rupee coin*	*Govt of India Rupee securities*
1950	678,17	55,30	471,67
1951	718,17	57,52	516,63
1952	623,17	76,08	464,63
1953	643,17	91,76	439,86
1954	693,17	98,73	421,22
1955	692,06	105,84	543,65
1956	686,57	107,69	708,68
1957	530,28	126,58	924,18

(ii) Banking Department

(In Lakhs of Rupees)

30th June	*Paid-up Capital & Reserves*	*All Deposits (total)*	*Bills payable*	*Other liabilities*	*Total liabilities or assets*	*Cash*
1950	10,00	271,89	3,81	12,14	297,83	36,74
1951	10,00	310,00	2,37	9,82	332.19	34,98
1952	10,00	241,54	3,31	8,01	262,87	34,56
1953	10.00	247,02	1,96	14,68	273,66	38,69
1954	10,00	241,45	2,18	20,97	274,60	41,33
1955	10,10	146,18	6,95	23.40	186,53	31,91
1956	10,10	137,56	5,32	39,81	192,69	28,37
1957*	85,00	291,26	13,16	31,34	420,76	39,62

30th June	*Bills purchased & discounted*	*Balances held abroad*	*Loans & Advances to Governments*	*Loans & advances to others*	*Investments*	*Other assets*
1950	1,76	189,25	93	10,01	57,05	2,10
1951	2,09	178,35	7,50	18,71	88,12	2,44
1952	10,19	98,24	1,58	28.28	86,94	3,08
1953	14,60	111,70	3,40	20,88	79,80	4,59
1954	5,83	92,65	47	37,47	91,31	5,55
1955	11,72	60,91	76	28,24	46,39	6,59
1956	8,36	38,52	2,37	69,68	37,33	8,06
1957	13	43,04	23,89	91,46	208,94	13,68

(*Statistical Tables relating to banks in India,* 1957)

(2) INDIAN BANKS

(a) State Bank of India

The State Bank of India was the outcome of the recommendation of the Committee of Direction of the All India Rural Credit Survey appointed by the Reserve Bank of India in August 1951. The Committee recommended the setting up of a State Bank as one strong integrated state-partnered commercial banking institution with an effective machinery of branches spread over the whole country for stimulating banking development by providing vastly extended remittance facilities for co-operative and other banks and following a policy which would be in effective consonance with national policies adopted by Government without departing from the canons of sound business. The Committee was of the view that the State Bank of India should be formed by taking over the Imperial Bank of India and other State-associated banks. Accordingly the State Bank of India Act was passed in 1955.

---

*Rise represents the major of the profit, on the revaluation of the Bank's gold stocks effected on Oct 6, 1956 in terms of the Reserve Bank of India (Amendment) Act, 1956 transferred to the Reserve Fund on June 30, 1957.

The State Bank of India came into being on July 1, 1955, when the entire undertaking of the Imperial Bank of India was transferred to it. The State Bank has an authorised capital of Rs. 20 crores and an issued capital of Rs. 5,62,50,000, which stands allotted to it in lieu of the shares of the Imperial Bank of India. The Reserve Bank of India holds at least 55 per cent of the issued share capital and may transfer the balance of 45 per cent of the State Bank shares to private shareholders, preference being given to the existing shareholders of the Imperial Bank of India. The erstwhile shareholders have been paid compensation at the rate of Rs. 1,765-10-0 for every fully paid-up share and Rs. 431-12-4 for every partly paid share.

The management of the Bank vests in Central Board consisting of (1) a Chairman and a Vice-Chairman appointed by the Central Government in consultation with the Reserve Bank, (2) not more than two Managing Directors, if any, to be appointed by the Central Board with the approval of the Central Government, (3) six directors elected by the shareholders, other than the Reserve Bank, whose names are entered in the various branch registers, (4) eight directors nominated by the Central Government in consultation with the Reserve Bank to represent territorial and economic interests, (5) one director nominated by the Central Government and (6) one director nominated by the Reserve Bank.

The State Bank continues to provide credit to industry, trade and commerce as the Imperial Bank used to do. An important statutory function assigned to the State Bank is the promotion of banking development through the establishment of an effective machinery of branches spread over the whole country ; the number of branches to be opened within a period of five years or such extended period as the Central Government might fix, being 400. It will provide considerably larger remittance facilities and attempt to mobilise available rural savings. Later, with an expanded organisation and with development in warehousing and marketing, the State Bank is expected to be a powerful agency for enlarging the supply of rural credit. The Reserve Bank will continue to provide assistance for the extension of rural credit through the apex co-operative banks, as at present

The State Bank shall, if so required by the Reserve Bank, act as agent of the Reserve Bank at all places in India where it has a branch and where there is no branch of the Banking Department of the Reserve Bank. With the sanction of the Central Government, the State Bank may also enter into negotiations for acquiring the business, including the assets and liabilities, of any banking institution.

LIABILITIES AND ASSETS OF THE STATE BANK OF INDIA

(In Lakhs of Rupees)

	Paid-up Capital	Reserves	Total Deposits	Cash in hand	Cash in Banks	Investments (Govt. Securities)
1953 ..	5,63	6,35	206,97	3,69	15,95	80,95
1954 ..	5,63	6,35	231,13	3,70	32,67	94,95
1955 ..	5,63	6,35	219,80	3,42	25,96	104,96
1956 ..	9.63	6.38	235.47	3,39	24.39	92,59
1957 ..	5,63	6,63	366,68	10,24	29,28	170,18

	Other investments	Money at call & short notice	Loans & Advances	Bills discounted & purchased	Net profit	No. of offices
1950 ..	14,40	—	94,44	7,51	1,25	382
1951 ..	16,23	—	133,66	8,81	1,30	393
1952 ..	16,61	—	107,12	6,05	1,33	410
1953 ..	13,19	—	92,03	14,28	1,27	424
1954 ..	13,77	—	96,15	6,17	1,37	455
1955 ..	12,02	1,53	89,01	16,80	1,36	484
1956 ..	14,28	1,07	107,42	32.74	1,56	538
1957 ..	13,25	2,00	154,61	18,87	1,87	622

(*Statistical Tables relating to banks in India*, 1957)

Joint-stock Banks or Other Indian Scheduled Banks

Other Indian scheduled banks are exclusive of the State Bank of India and major exchange banks. These other Indian Scheduled Banks are registered under the Indian Companies Act.

Known also as the Joint-Stock Banks, they are sub-divided into four classes, namely (*a*) those with a paid-up Capital and Reserves of Rs. 5 lakhs and over (*b*) those with a paid-up Capital and Reserves between one lakh and less than Rs. 5 lakhs, and two other divisions with less capital and reserves.

Indian Scheduled Banks are mainly commercial banks. These Banks provide India's internal banking facilities. They receive deposits or mortgages, discount local bills, open cash credit accounts, advance loans against stock exchange securities, grain or cloth, buy and sell shares and transact other banking business. They keep the valuables of their customers in safe custody and render other services to their customers. The agricultural business of these banks is small and is generally confined to big landholders and planters.

LIABILITIES & ASSETS OF OTHER INDIAN SCHEDULED BANKS

(In Lakhs of Rupees)

		No. of banks	Paid-up capital	Reserves	Total deposits	Cash in hand	Cash at Banks
1953	..	72	27,12	20,37	533,04	33,73	46,68
1954	..	71	27,03	20,34	586,08	32,88	54,23
1955	..	71	27,22	20,38	657,47	35,49	53,31
1956	..	71	27,36	20,78	725,33	36,95	53,52
1957	..	73	29,11	23,22	857,12	38,96	70,10

		Investments (Govt. Securities)	Other Investments	Money at call or short notice	Loans & advances	Bills discounted & purchased	Net profits	No. of offices
1953	..	201,28	35,44	—	244,76	47,67	4,19	2,189
1954	..	205,29	36,11	—	277,74	55,67	4,55	2,244
1956	..	231,86	38,57	8,90	372,26	106,03	6,70	2,359
1957	..	224.13	55.35	37.43	432.16	94.18	7.62	2.584

(*Statistical Tables relating to banks in India,* 1957)

EXCHANGE BANKS

The main business of the Exchange Banks is financing the foreign trade of India. The Exchange Banks are all incorporated outside India. They purchase bills in foreign currency, grant loans against shipping and other documents. They also play some little part in the financing of inland trade, mainly for the movement of goods for export or of goods imported. But now they are extending their operations in the interior of the country and are receiving deposits also on saving and fixed accounts and are engaged in financing the internal trade of India. Because the Banking Companies Act of 1949 requires banks to maintain 75 per cent of the liabilities in the form of assets inside of India the exchange banks' internal financial operations are likely to increase.

The Exchange Banks furnish the immediate link with the outside world of trade and commerce. Primarily the exchange banks specialise in the finance of foreign trade and their beginning dates back to the Oriental Banking Corporation in 1842.

The Exchange Banks are—*National Bank of India, Lloyds Bank, Chartered Bank of India, Australia and China, Grindlays Bank, Hongkong and Shanghai Banking Corporation, Mercantile Bank of*

India, Eastern Bank, National City Bank of New York, Bank of Tokyo, British Bank of Middle East. Netherlands Trading Society, American Express Co, Comptoir National D'Escompte de Paris, Bank of China.

LIABILITIES AND ASSETS OF FOREIGN SCHEDULED BANKS

(In Lakhs of Rupees)

	No. of Banks	Total Deposits	Cash in hand	Cash in Banks	Investments in Govt. Securities	Other investments
1953	16	165,81	2 25	12,34	45,97	1,03
1954	16	178 49	2,22	13,83	46,39	1,84
1955	17	191,46	3,22	14,58	46,01	3,66
1956	17	187,21	2,81	15 02	39,27	2,87
1957	17	204,14	2,62	17,53	38,91	4,39

	Money at call or short notice	Loans & Advances	Bills discounted & Purchased	Net profits	No. of offices
1953 ..	—	110,71	20,44	1,39	68
1954 ..	—	124,94	25,75	1,25	66
1955 ..	5,72	136 07	31,88	1,68	67
1956 ..	4 39	161 92	40 64	1,66	67
1957 ..	12,07	143,87	50,42	1,92	67

LIABILITIES AND ASSETS OF TOTAL SCHEDULED BANKS

(State Bank of India other Indian and Foreign Scheduled Banks)

(In Lakhs of Rupees)

	No. of banks	Paid Capi	Reser	Total Depos	Cash hand	Cash banks	Investments (Govt. Securities)
1953	89	32,75	26,72	905,85	39,67	74,97	328,20
1954	88	32,66	26,69	995,70	38,80	100,73	346,63
1955	89	32,85	26 73	1,071,73	42,13	93,85	382,21
1956	89	32 99	27 16	1,148 07	43,15	92,00	363,72
1957	91	34,74	29.85	1,427.94	51.82	116.95	433,22

	Other Investments	Money at call & short notice	Loans & Advances	Bills discounted & purchased	Net profit	No. of offices
1953	47,66	..	447,50	82,39	6,85	2,681
1954	51,72	..	498,83	87,59	7,17	2,765
1955	53,66	11,66	533,83	131,29	8,28	2,858
1956	55,64	14,36	640,90	179,41	9,92	2,966
1957	72,99	51,50	730,64	163,47	11,31	3,273

(*Statistical Tables relating to banks in India,* 1957)

(b) NON-SCHEDULED BANKS

Non-scheduled banks include all banks which are incorporated companies but have less than Rs. 500,000 of paid-up capital and reserves. They are divided into four groups—

(1) A-2 Banks—paid-up Capital and reserves of Rs. 5 lakhs or **more**, but which for other reasons have been excluded from the **scheduled** banks.

(2) B Banks—paid-up capital and reserves of Rs. one lakh to Rs. 5 lakhs.

(3) C Banks—paid-up Capital and reserves of Rs. 50,000 to Rs. one lakh each.

(4) D. Banks—paid-up capital and reserves of less than Rs. 50,000.

LIABILITIES AND ASSETS OF TOTAL NON-SCHEDULED BANKS

	No. of banks	Paid-up Capital	Reserves	Total Deposits	Cash in hand	Cash in banks
1953	432	9,07	4,68	63,54	6,14	3,93
1954	410	8,80	4,81	66.83	6,17	4,43
1955	366	8,11	4,67	70,13	6,48	3,79
1956	334	7,64	4,44	73,75	6,60	3,46
1957	298	6,09	3,38	51,81	4,79	3,12
	Investments (Govt. Securities)	*Investments (others)*	*Loans & Ad-. vances*	*Bills discounted & purchased*	*Net profit*	*No. of offices*
1953	20,49	4,15	41,90	1,64	62	1,262
1954	21,69	4,99	40,79	1,65	62	1,199
1955	25,24	5,61	37,32	2,09	63	1,142
1956	25,67	6,28	39,82	2,72	71	1,101
1957	13,77	3,75	33,16	1,53	48	947

TOTAL ASSETS AND LIABILITIES OF SCHEDULED AND NON-SCHEDULED BANKS

	No. of Banks	*Paid-up Capital*	*Reserves*	*Total deposits*	*Cash in hand*	*Cash in Banks*
1953	521	41,82	31,40	969,39	45,81	78,90
1954	498	41,46	31,50	1,062,53	44,97	105,16
1955	455	40,96	31.40	1,141,86	48,61	97.64
1956	433	40,63	31,60	1.221,09	49,75	96,39
1957	389	40,83	33,23	1,479,75		120,05

	Govt. Investments	*Other investments*	*Loans & Advances*	*Bills discounted & Purchased*	*Net profit*	*No. of offices*
1953	348,69	51,81	488,40	84,03	7,47	3,943
1954	368,32	56,71	539,62	89.24	7.79	3,964
1955	407.45	59 27	571.15	133,38	8.91	4,000
1956	389,30	62,90	680,72	182,13	10,63	4,065
1957	416,99	76,74	763,80	165,02	11,79	4,220

(C) CO-OPERATIVE BANKS

The Co-operative Banking organization owes its origin to the Co-operative Credit Societies Act of 1904. This Act was further amended by the Act of 1912. Under Co-operative Societies Act, all classes of registered societies, whether in themselves primary units or federation of constituent societies, are spoken as 'Societies.' In actual practice, however, the primary units are in some provinces known as banks and in others as societies. Co-operative Banks comprise State and Central co-operative banks, and registered non-agricultural (urban) Co-operative Credit Societies, with limited liability, each having minimum paid-up capital and reserves of Rs. 1 lakh. They are sub-divided into two classes, namely 'A' bank or banks with capital and reserves of Rs. 5 lakhs and above each, and 'B' banks or banks with capital and reserves ranging between Rs. one lakh and Rs. 5 lakhs each.

The Co-operative Banking system consists of the Provincial Bank at apex, the affiliated Central Banks, and lastly the primary societies affiliated to the Central Banks. According to the rules framed under the Act, these banks cannot generally lend the non-members.

The functions of Co-operative Banks are as follows :—

(1) Attracting deposits from money-lenders and professional classes. (2) Lending money to the primary co-operative societies. (3) Taking away the excess fund of a Co-operative Society and utilising it for making up the deficiency of others. (4) Supervising and guiding the actions of affiliated Societies.

LIABILITIES AND ASSETS OF ALL CO-OPERATIVE BANKS

	No. of banks	*Paid-up Capital*	*Reserves*	*Total Deposits*	*Cash in hand*	*Cash in banks*	*Invest-ments*
1952-53	477	12,27	12,01	115,37	3,39	8,52	36,17
1953-54	542	14,69	12,67	129,39	3,73	8,84	38,70
1954-55	582	17 39	13,83	145,66	4,05	14,91	42,52
1955-56	578	19 93	14,74	184,39	4,41	23,09	49,38
1956-57	652	24,78	16,46	222 65	5,48	23,10	55,79

	Loans & Advances	*Net profit*	*No. of offices*
1953-54	.. 98,71	1,37	1,014
1954-55	.. 109 08	1,57	1,130
1955-56	134,75	1,75	1,229
1956-57	177,10	2,12	1,421

(*Statistical Abstract relating to Banks in India, 1957*).

INDIGENOUS BANKS

A large part of India's credit is absorbed by agriculture, small-scale manufacturing and retail trade. Few such borrowers are able to obtain credit from either scheduled or non-scheduled banks and must turn to less strict sources of credit, such as indigenous bankers, money lenders, loan offices, mutual aid societies or co-operatives.

The indigenous bankers are those who carry on banking business according to traditional Indian methods. They are known as *Shroffs, Sahukers, Nidhis, Chettiyars* The Indian Central Banking Enquiry Committee defines an indigenous banker or bank as an individual or private firm receiving deposits and dealing in hundis or lending money. Those who do not receive deposits are to be known as money lenders. Their business is generally a family concern. They supply their own capital. Some of them also accept deposits from the public Their main function is to grant loans against the security of gold or ornaments, Government Securities, etc. They grant loans to village money-lenders, *banias* and small artisans. They finance movement of agricultural crops from one part of the country to another by drawing hundis or internal bills of exchange. They also discount hundies. Indigenous bankers are generally divided into three categories—(1) Those who confine their business in banking proper, (2) those who are principally traders or merchants but employ surplus funds in banking business and (3) those who are both bankers and traders and cannot be easily classified as principally bankers or principally traders. The indigenous bankers are found to render valuable services in connection with financing of internal trade and middle-sized and small industries and inland remittance works.

LAND MORTGAGE BANKS

Royal Commission on Agriculture in India in 1928 and Banking Enquiry Committee in 1930 recommended that Land Mortgage Banks based on co-operative principles are desirable in many parts of India. The principal objects of these banks should be the redemption of lands and houses of agriculturists and liquidation of old debts. Other objects are improvements of land and of methods of cultivation and the building of houses of agriculturists and purchase of land in special cases.

Land Mortgage Banks have been started under the auspices of the co-operative movement in the Punjab, Madras, Bombay, Bengal and Assam, but the beginning is very small.

IMPORTANT BANKING DEVELOPMENTS

Banking Companies Act—The Act was passed on Feb. 17, 1949 and applied to all banking companies except co-operative banks. Banking has been defined as "the accepting for the purpose of lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdrawable by cheque, draft, order or otherwise."

Under the Banking Companies Act, 1949, the business which a banking company may transact has been defined and minimum paid-up capital and reserves varying with the geographical coverage of a banking company, have been prescribed. The minimum paid-up capital and reserves required of a banking company having only one office outside the city of Bombay or Calcutta, have been fixed at Rs. 50,000. A banking company is required to use as part of its name the word 'bank,' 'banker' or 'banking' and a non-banking company is prohibited from using any of these words in its name.

New and existing banks must have lincences from the Reserve Bank to operate. Such licences need not be granted, if the bank is incorporated in a country which discriminates against banks in India or for certain other reasons. The banks are required to submit monthly, quarterly and annual reports and an annual audited balance-of-payments statement.

Scheduled Banks continue to be required to keep minimum reserves with the Reserve Bank of India and to submit weekly returns under Reserve Bank of India Act, 1934. All banks other than scheduled banks are now required to maintain in cash with them or with the Reserve Bank, 2 p.c. and 5 p.c. of their time and demand liabilities respectively and to submit monthly returns giving details of cash held and time and demand liabilities as on each Friday of the month.

All banking companies are required, two years after commencement of this Act, to maintain at least 20 p.c. of their demand and time liabilities in India in cash, gold or unencumbered approved securities, valued at a price not exceeding the current market price.

The Act prohibits inter-locking directorates among banking companies and the employment of managing agents, as well as granting of unsecured loans or advances to any of the directors or to firms in which directors are interested. Monthly returns are to be submitted to the Reserve Bank relating to unsecured loans to companies in which the directors are interested.

Reserve Bank has now the power, on a permanent statutory basis, to control the entire joint-stock banking system in the Indian Union. It may give direction to banking companies in regard to their lending policies. It may caution or prohibit banking companies generally or any banking company in particular against entering into any particular transaction or class of transaction. It may call for periodical as well as *ad hoc* returns, and in the public interest may also publish such information in any consolidated form, if it deems fit. It may inspect any bank either on its own initiative or on being directed to do so by the Government. Reserve Bank's prior permission is required for opening of new branch offices and the transfer of existing ones. This Act of 1949 was further amended by the *Banking Companies (Amendment) Act*, 1950 which was passed on the 10th March, 1950. The main features of the Act are as follows—(1) It empowers the Reserve Bank to control the opening of branches by Banks in India as well as outside India, (2) scope of the term "Assets in India" is enlarged to include export bills drawn in and import bills drawn on, and payable in India in currencies approved by the Reserve Bank of India as well as securities so approved. (3) The Act contains provisions to facilitate amalgamation of banking companies. (4) The Act provides for automatic transfer of all assets and liabilities of the amalgamated banking companies to the transferee company. A compromise or arrangement between a banking company and its creditors is effective only if certified by the Reserve Bank.

By *Reserve Bank of India (Amendment) Act* of 1951, the power of the Reserve Bank was further widened, such as, Reserve Bank may exempt any bank from the provision of maintaining statutory balances with it or submitting returns under Sec. 42 for such period and to such extent as it may think fit; the Bank's power to obtain returns similar to those from scheduled banks is extended to all State Co-operative Banks; Bank is authorised to act as an agent for any foreign Government or person approved by the Government; Bank is authorised to undertake the monetary and debt management functions of Part B States by agreement with such States.

Another Act known as *Banking and Insurance Companies Tribunal Act* was passed in Dec., 1949. It prohibits State Governments from referring disputes between the employees and banking or insurance companies, having branches in more than one State, to any

officer or authority subordinate to themselves, for adjudication, inquiry or settlement. Such disputes fall under the jurisdiction of the Industrial Tribunal established for the purpose by the Central Government.

ALL-INDIA RURAL CREDIT SURVEY COMMITTEE'S REPORT—An important development in the field of banking was the publication in 1954 of the General Report of the Committee of Direction of All India Rural Credit Survey appointed by the Reserve Bank of India in August, 1951 The Committee looks up to the Co-operative Movement as a potent force in the country's economic development; and the integrated scheme of rural credit envisaged by it is based on State partnership at different levels, full co operation between credit and other activities, and administration through adequately trained personnel. The Committee has recommended a major re-organisation of co operative credit and agricultural marketing and the establishment of a State associated" sector of commercial banking for the benefit of the rural areas, more particularly the small cultivator and the handicraftsman Among other things, it has proposed, for the purpose, the creation of the five National Funds, two of which are to be instituted under the Reserve Bank of India, formation of National Co operative Development and Warehousing Board, the establishment of a State Bank and the training of personnel for carrying out the programmes of rural development.

NATIONAL AGRICULTURAL CREDIT FUNDS—One of the important recommendations of the Rural Credit Committee relates to the creation of two National Funds under the Reserve Bank of India for the orderly financing of the proposed reorganisation of the co operative movement The Reserve Bank of India (Amendment) Act passed by Parliament in April, 1955 authorised the Reserve Bank to set up these two funds, *viz*, *National Agricultural Credit (Long term Operations) Fund* with an initial sum of Rs 10 crores and *National Agricultural Credit (Stabilisation) Fund* The Reserve Bank constituted the National Agricultural Credit (*Long-term Operations*) Fund, on February 8 1956 The Long Term Operations Fund has been established for making (*i*) *long term* loans and advances, to State Governments for a maximum period of 20 years to enable them to subscribe directly or indirectly to the share capital of co operative credit institutions (*ii*) *medium term* loans (between 15 months and 5 years) to state co operative banks for agricultural purposes (*iii*) *long term* loans and advances to central land mortgage banks upto a maximum period of 20 years, (*iv*) purchases of debentures of central land mortgage banks by the Reserve Bank of India. *The Stabilization Fund* is to be applied exclusively for making *medium term* loans and advances to state co-operative banks to enable them to convert their short term credit into medium-term credit

TRAINING IN BANKING—(1) Bankers' Training College was opened at Bombay on the 14th September, 1954 by the Reserve Bank of India for imparting training in practical banking to supervisory staff of commercial banks. Students will be trained in all aspects of banking and a dummy bank would be opened in the institution to give more practical work to them.

(2) Co-operative Training Centre has been opened in Poona for training workers of the co-operative banks in India.

(3) Baroda University has opened training course in banking at Baroda. The course is meant for graduates in banking who wish to take banking as a profession.

CO-OPERATIVE DEVELOPMENT & WAREHOUSING BOARD —*Agricultural Produce (Development and warehousing) Corporations Act*, 1956 was passed in June, 1956 and the *National Co-operative Development and Warehousing Board* was set up on September 1, 1956. The functions of the Board constituted under the Act are to plan and promote, among other things, programmes for marketing, storage and warehousing of agricultural produce through a co-operative society or a Warehousing Corporation. The Central Government is to provide to the Board a non-recurring grant of Rs. 5 crores and a recurring grant of or Rs. 5 crores each year during five years from the commencement of the Act. The Board is required to maintain two funds, *viz.*, the *National Co-operative Development Fund* and (2) *National Warehousing Development Fund.* The former fund is to be used for advancing loans and granting subsidies to State Governments to subscribe to the share-capital of co-operative societies or for otherwise financing co-operative societies. The latter fund is to be used for (1) subscribing to the share-capital of the Central Warehousing Corporations, (2) advancing loans to State Governments for the purpose of enabling them to subscribe to the share-capital of State Warehousing Corporations and (3) for advancing loans and granting subsidies to a Warehousing Corporation or to a State Government for the purpose of promoting the warehousing and storage of agricultural produce. In accordance with a provision of the Agricultural Produce & Development and Warehousing Corporations Act, 1956, the Central Warehousing Corporation was established on March 2, 1957 with a share-capital of Rs. 10 crores. The authorised capital is Rs. 20 crores.

INDIAN JOINT-STOCK BANKS, 1957

Number of Banks

I. Indian Banks		1953	1954	1955	1956	1957
(i) Scheduled (AI)	..	73	72	72	72	74
(ii) Non-Scheduled—						
A2	..	67	65	64	58	55
B	..	196	191	190	170	163
C	..	114	116	105	93	76
D	..	54	37	25	12	4
Total of *(i)* & *(ii)*	..	504	481	456	405	372

(*iii*) Co-operative					
A	104	124	140	146	182
B	373	418	432	432	470
Total of (*iii*)	477	542	572	578	652
Total (*i*), (*ii*) & (*iii*)	981	1,023	1,028	983	1,024
Total (*i*) (*ii*) & (*iii*)	981	1,023	1,028	983	1,024
II. Foreign Banks—					
(i) Scheduled	16	16	17	17	17
(ii) Non-Scheduled	1	1	1	..	..
Total I & II	998	1 040	1,046	1,000	1,041

(*Statistical Tables relating to Banks in India, 1957*)

POST OFFICE SAVINGS BANK TRANSACTIONS

	No of depositors (000)	*Deposits including interest (in lakhs) of Rs.)*	*With-drawals (in lakhs of Rs.)*	*Balances (in lakhs of Rs.)*	*Average balance per depositor (in Rs.)*
1952	4,446	121,33	108,55	199,81	449·4
1953	4,830	124,49	106,74	217,68	450·7
1954	5,070	141,18	126,91	231,95	457·5
1955	5,384	147,17	122,63	256,49	476 4
1956	5,988	171 64	134 63	293 50	490·1
1957	6,385	193,98	165,32	322,08	504·4

(*Statistical Tables relating to Banks in India, 1957*)

NUMBER OF CHEQUES & AMOUNTS CLEARED, 1957

	No. of cheques	*Amount* (lakhs)		*No of cheques*	*Amount* (lakhs)
Calcutta	85,11,656	3,094,19	New Delhi	17,14 668	323,01
Bombay	1,50,12,018	3,416,90	Bangalore	10,88 000	133,31
Madras	42,80,150	514,24	Nagpur	3,89,647	59,20
Kanpur	9,38,058	182,55	Others	90,52,806	1,169,83
			Total	4,09,87,003	8,893,23

STATE-WISE DISTRIBUTION OF INDIAN JOINT-STOCK BANKS, 1957

	No. of Banks	*Paid-up Capital* (Rs. 000)	*Reserves* (Rs. 000)	*No. of offices*
Andhra	7	1,13,58	44,59	270
Assam	2	8,03	3,38	32

State-Wise Distribution Of Indian Joint-Stock Banks, 1957—(*Concld.*)

Bihar	7	57,63	36,35	147
Bombay	32	10,64,25	10,46,81	725
Kerala	113	3,30,54	1,33,10	587
Madhya Pradesh	5	1,39,29	63,80	170
Madras	99	2,93,92	2,40,12	650
Mysore	35	2,16,09	2,11,44	373
Orissa	2	27	4,90	29
Punjab	8	42,29	1,17,48	285
Rajasthan	5	1,79,23	1,01,69	124
Uttar Pradesh	19	1,73,00	49,16	417
West Bengal	23	12,89,03	10,51,47	195
Jammu & Kashmir	1	7,86	2,10	25
Andaman & Nicobar Islands	1			1
Delhi	12	2,12,34,36	2,14,89	104
Himachal Pradesh	—	—	—	9
Manipur	1	14,08	1,35	1
Pondicherry	—	—	—	5
Tripura	1	19,85	34	4
	372	40,83,30	33,22,97	4,153

LEADING INDIAN JOINT-STOCK BANKS

(Class A1 Scheduled Banks *In thousands of Rupees*)

		Paid up capital	*Reserves*	*Total Deposits*	*Balance of profit or loss (—)*	*Total liabilities or assets*	*Dividend*
Allahabad Bank	1956	45 50	1 08 00	33 82 89	13 47	41 46 12	18
	1957	45 50	1 08 00	37 94 58	13 61	47 30 76	18
Bank of Baroda	1956	1 00 00	1 28 00	45 13 84	12 76	63 08 59	14
	1957	1 00 00	1 28 00	52 82 81	12 11	64 82 58	14
Bank of India	1956	3 00 00	3 02 00	66 05 64	48 55	96 41,99	16
	1957	3 00 00	3 10 00	73 81 30	46 02	98 47 62	16
Central Bank of India	1956	3 10 54	4 02 77	1 30 23 76	43 39	1,80 59 76	14
	1957	3 14 54	4 03 61	1 52 00 19	43 60	1,91,90 56	14
Punjab National Bank	1956	87 50	1 25 00	1 05 56 75	13 20	1,41,03,20	16
	1957	1 25 00	1 10 00	1 23 62 39	17 02	1,51,98,42	20
State Bank of India	1956	5 62 50	6 37 50	2 35 48 77	41 91	2,80 28,34	16
	1957	5 62 50	6 62 50	3,66 67 96	55 99	4,05,12,01	16
United Bank of India	1956	2 66,56	75 25	33,82,18	9,73	45,18,00	8
	1957	2 66 56	78 58	38,27,17	9,77	48,60,63	8
United Commercial Bank	1956	2 00 00	1 15,00	49,96,39	14,29	91,51,42	7
	1957	2,00,00	1 34,00	59,12,53	15,49	90,22,61	7½

PUBLIC FINANCE

INDIAN'S PUBLIC FINANCE—Under the Constitution of India, the power to raise funds has been divided between the Centre and the States. According to the provisions of the Constitution of India, the accounts of the Union Government are kept in two separate parts, namely, the *Consolidated Fund* and the *Public Account*. All revenues received, loans raised, and money received in repayment of loans by the Union Government form the Consolidated Fund of India. No money can be withdrawn from the Fund without the authority of an Act of Parliament. All other receipts and disbursements, such as deposits, service funds, remittances, etc., go to the Public Account which is not subject to the vote of the Parliament. To meet unforeseen expenses, a *Contingency Fund* has also been established. This fund provides an imprest which can be drawn upon, pending authorisation of the expenditure by Parliament. Similarly, there are *Consolidated Fund, Public Account* and *Contingency Fund* for each State.

The Constitution provides for the appointment of a Comptroller and Auditor-General of India by the President to keep watch on the finances and accounts of the Union and the States. It is his responsibility to see that the expenses voted by Parliament or the legislature of a State and laid down in the Appropriation Act are not exceeded and varied. The Constitution also enjoins that an account of the expenditure of each government should be approved by its legislature.

Towards the beginning of the financial year in April, the estimates of receipts and expenditure are presented to Parliament by the Central Government and before the legislatures by the State Governments and no expenditure can be incurred without a specific grant being made for that purpose. Certain routine items of expenditure, which cannot await legislative sanction, are, however, non-votable. These items are chargeable to the Consolidated Fund of India or those of the State Governments concerned.

The railways have their own funds and accounts and their budget is presented separately. The appropriations and disbursements under the railway budgets are, however, subject to the same forms of parliamentary and audit control as the other appropriations and disbursements.

ALLOCATION OF REVENUE—The main source of the Central revenues are *customs duties, excise duties, the Corporation and income taxes, estate and succession duty on non-agricultural assets and property and the earnings of the mints* and wealth tax and expenditure tax. Besides, the railway and posts and telegraphs contribute to the general revenue of the Centre. As much as 85 per cent of the total central revenue is derived from the customs and Union excise duties and the Corporation and income taxes.

The main heads of revenue in the States are (1) taxes and duties levied by the State Governments ; (2) civil administration and civil works ; (3) State undertakings ; (4) taxes shared with the Centre and (5) grants received from the Centre. Land revenue, motor vehicles tax, entertainment tax, electricity duty, agricultural income-tax and other taxes and duties account for nearly one half of the total revenue receipts of the States. More than half of the income tax levied by the Central Government accrue to the States. Taxes on agricultural income constitute an exclusively state subject. Other State sources include excise duties on liquors, opium and other narcotics, sales tax, taxes on consumption or sale of electricity, taxes on goods and passengers carried by road or on inland waterways, taxes on certain vehicles including tram cars, taxes on animals and boats, tolls, taxes on professions, trades, callings and employment, capitation taxes, stamp duties and taxes on luxuries and amusements.

FINANCE COMMISSION—Art. 280 lays down that the President shall, within two years from the commencement of the Constitution and thereafter, at the expiration of every fifth year or at such earlier time as the President considers necessary, constitute a Finance Commission. It shall be the duty of the Commission to make recommendations as to (*a*) the distribution between the Union and the States of the net proceeds of taxes which are to be or may be divided between them and the allocation between the States of the respective shares of such proceeds ; (*b*) the principles which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India and (*c*) the continuance or modification of the terms of any agreement entered into by the Government of India with the govt. of any Part B States ; (*d*) any other matter referred to the Commission by the President in the interest of sound finance.

Second Finance Commission was appointed under Article 280 (1) of the Constitution in June, 1956. This is the second Finance Commission which submitted their report in September, 1957. The Commission made recommendations regarding the distribution of divisible Central taxes, the principles which should govern the grants-in-aid from the Centre to the States and the continuance or modification of the terms of agreements entered into by the Central Government and the States. The recommendations of the Commission provide for a devolution of about Rs. 140 crores per year (not including the proceeds of the tax on railway fares amounting to Rs. 15 crores in a full year) as against an average sum of Rs. 93 crores received by the States under the first Finance Commission's recommendations.

The table below summarises what each State may expect to receive under the recommendations taken together in each five years beginning on April 1, 1957. The figures shown against shares of taxes are only estimates and indicate the order of the sums to be received ; the actuals will vary from year to year.

STATES' SHARE OF TAXES AND CENTRAL GRANTS

(*Rs. in Crores*)

	Share of taxes	*Grant under Article 273*	*Grants under Substantive portion of Article 275(1)*	*Total*	*Tax on Rly. fares*
Andhra Pradesh ..	8.50	—	4.00	12.50	1.31
Assam	2.75	0.45	4.05	7.25	0.40
Bihar .	10.00	0.13	3.80	14.23	1.39
Bombay .	14.75	—	—	14.75	2.41
Kerala ..	3.75	—	1.75	5.50	0.27
Madhya Pradesh .	7.00	-	3.00	10.00	1.23
Madras	8.25	-	—	8.25	0.96
Mysore ..	5.50	--	6.00	11.50	0.66
Orissa ..	4.00	0.09	3.35	7.44	0.26
Punjab ..	4.25	—	2.25	6.50	1.20
Rajasthan .	4.25	—	2.50	6.75	1.00
Uttar Pradesh ..	16.25	—	—	16.25	2.78
West Bengal	9.50	0.91	3.85	14.26	0.94
Jammu & Kashmir .	1.25	—	3.00	4.25	—
	100.00	1.88*	37.55	139.43	14.81

TREND OF PUBLIC FINANCE—The Government finances were subject to severe strain during the year 1957-58 owing to a marked increase in expenditure on the one hand and a short fall in resources on the other. As a result, the magnitude of budgetary deficit at about Rs. 500 crores was twice as large as in 1956-57. As regards State governments, there was an aggregate deficit of Rs. 20 crores as compared to Rs. 86 crores in the previous year (1956-57). Thus, for the centre and the States together the budgetary deficit totalled Rs. 503 crores as compared to Rs. 253 crores in 1956-57.

The rise in expenditure was mainly due to higher Plan outlay, which during 1957-58 was estimated at Rs. 861 crores as compared to Rs. 635 crores in 1956-57. Non-developmental expenditure too—defence in particular, recorded a marked rise. A substantial sum was raised by the Central Government through additional taxation measures. The contribution of the States, however, fell short of expectations, though they received substantial sums from the Central Government in terms of the recommendations of the second Finance Commission. On the other hand, the resources raised through market loans and small savings recorded a substantial decline, from Rs. 200 crores in 1956-57 to Rs. 127 crores in 1957-58.

---

*This is an average for five years of payments which will actually be made to the States in the three years ending March 31, 1960. Grants-in-aid under Article 273 cease on the expiry of ten years from the commencement of the Constitution

For 1958-59, Plan outlay is estimated at Rs. 960 crores. The budgetary deficit is estimated at Rs. 215 crores, which is much smaller than in 1957-58. The credit has been taken for substantial increase in external assistance and receipts from loans and small savings. The former is estimated to rise from Rs. 100 crore in 1957-58 to Rs 300 crores in 1958-59, while loans and small savings are estimated to bring in net receipts of Rs. 217 crores as compared to Rs 127 crores in 1957-58.

However, in view of the strain on resources, both external and domestic imposed by the Plan, the National Development Council in May 1958 decided that the ceiling of total outlay, in financial terms, should remain unchanged at Rs 4,800 crores but the Council decided to split the Plan outlay into two parts Part (A) of the Plan involving an outlay of Rs 4,500 crores "would represent the level of outlay upto which, on the present assessment of resources, commitments might be entered into" The remaining schemes are to be included in Part (B) of the Plan, which will be undertaken to the extent resources become available The revised picture of the Plan is as follows—

REVISED SECOND FIVE YEAR PLAN

(Crores of Rupees)

Likely actual for 1st
years of the Plan

	1956-57	1957-58	1958-59	Total for 3 years	Total 1956-61 as envisaged in Part A of Plan	Total as in the Plan
Plan Outlay	635	861	960	2456	4500	4800
I Domestic Budgetary Resources						
(*a*) Balance from Central revenue	139	150	150	439	899	1200
(*b*) Railways contribution	34	45	50	129	250	150
(*c*) Loans and small Savings	200	127	217	544	1044	1200
(*d*) Unfunded debt and misc Capital Receipts	14	—25	28	—11	69	250
Total (*a*+*b*+*c*+*d*)	359	297	445	1101	2262	2800
II External Assistance	38	100	300	438	1038	800
III Deficit Financing	238	464	215	917	1200	1200
IV Total (I+II+III)	635	861	960	2456	4500	4800

UNION GOVERNMENT BUDGET

REVENUE ACCOUNT—The revenue and expenditure accounts of the Central Government are given below to give an idea as to their trends

	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59
	(Crores of Rupees)				*Revised*	*Budget*
Revenue	394.3	434.8	480.2	563.2	671.7	685.0*
Expenditure	385.8	401.2	440.7	473.8	666.6	712.0
Surplus (+) or Deficit (−)	+8.5	+33.6	+40.5	+89.4	+5.1	−27.0

1957-58 Revised Budget—The revised estimates for 1957-58 disclose a surplus of only Rs. 5 crores as compared to the budgeted surplus of Rs. 36 crores. The increase in expenditure was mainly the result of an increase under defence (Rs. 12 crores) and grants to States in terms of Finance Commission's recommendations (Rs. 22 crores).

1958-59 (Budget Estimates)—The budget estimates for 1958-59 place revenue (at existing level of taxation) at Rs. 679 crores as compared to the revised estimate of Rs. 672 crores for 1957-58 and expenditure at Rs. 712 crores as compared to Rs. 667 crores in 1957-58, leaving a deficit of Rs. 33 crores. The tax proposals for the year 1958-59 are relatively minor in character ; they are expected to yield in the aggregate an additional revenue of Rs. 6.33 crores of which Rs. 5.83 crores would accrue to the centre.

CAPITAL ACCOUNT—As against deficits of Rs. 74 crores and Rs. 6 crores in 1956-57 and 1957-58 (R.E.) respectively, the capital account for 1958-59 shows a surplus of Rs. 34 crores. This is, however, purely accounting result and if net receipts under Treasury bills are excluded, all the three years would show deficits amounting to Rs. 314 crores in 1956-57, Rs. 386 crores in 1957-58 and Rs. 171 crores in 1958-59. These deficits are largely due to the stepping up of capital outlay, which has increased from Rs. 263 crores in 1956-57 to Rs. 383 crores in 1957-58 and Rs. 410 crores in 1958-59. The increase in capital outlay in 1958-59 is mainly under industrial development. Capital receipts for 1958-59 are placed at Rs. 601 crores as compared to Rs. 453 crores in 1957-58 (R.E.).

BUDGETARY POSITION OF THE GOVERNMENT OF INDIA

(Crores of Rupees)

		1957-58		1958-59
I. REVENUE ACCOUNT	1956-57	*Budget*	*Revised*	*Budget*
A. 1. Revenue ..	*571.74*	*684.66*	*684.41*	*700.02*
2 Tax revenue	493.76	563.83	557.60	572 34
3 (2) *as p.c. of* (1) ..	86 4	82 4	81.5	81.8
4. Non-tax revenue .	77.98	120.83	126.81	127.68
B. 1. Expenditure ..	492.34	648 92	679.36	727.04
2. Defence (net) .	192.15	252.71	266.05	278.14
3. (2) *as p.c. of* (1) .	39 08	38 09	39 02	38 03
4 Civil Expenditure .	290 19	396.21	413 31	448.90

---

*Including the effect of budget proposals. Reliefs announced subsequently are not taken into account.

C Surplus (+) or (Deficit (−)	+89 40	+35 74	+5 05	−27 02
II CAPITAL ACCOUNT				
A Receipts	173 61	476 45	309 76	580 40
1 Permanent debt (Net)	85 78	171 99	141 96	403 26
2 Other debt (Net)	87 83	304 46	167 80	177 14
B Disbursements	487 64	795 22	695 94	751 59
1 Capital outlay outside the Revenue Account (net)	274 51	550 57	461 83	491 35
2 Redemption of Permanent Debt (net)		—	—	—
3 Loans & Advances (net)	213 13	244 65	234 11	260 24
C Surplus (+) or Deficit (−)	314 03	−318 77	386 18	−171 19
III Miscellaneous (net)	+39 88	−1 07	+0 64	−1 13
IV Over-all Surplus (+) or Deficit (−) (IC + IIC + III)	184 75	84 06	−380 49	199 34
V Financed by				
A Treasury Bills (net) (increase +)	−240 45	275 00	80 00	−205 00
B Cash Balance (decrease − or increase +)	[illegible]	9 06	0 49	+5 66
(i) Opening Balance	4 66	50 11	51 04	50 55
(ii) Closing Balance	51 04	41 05	50 55	56 21

(*Report on Currency & Finance, 1957 58*).

REVENUE & EXPENDITURE OF THE GOVERNMENT OF INDIA

(*Crores of Rupees*)

		1957 58		1958 59
REVENUE	1956 57	*Budget*	*Revised*	*Budget*
1 Taxes on Income & Expenditure	144 17	140 42	152 97	143 03
2 Taxes on Commodities & Services	347 16	407 74	412 09	410 15
3 Taxes on Property and Capital Transactions	2 41	15 67	12 54	19 16
4 Total tax revenue (1+2+3)	493 74	563 83	577 60	572 34
5 Administrative Receipts	16 90	46 14	59 56	47 10
6 Net Contributions of Public undertakings	51 81	39 12	37 41	36 42
7 Other Revenue	0 7[illegible]	23 16	17 09	29 16
8 Total Revenue ((4+5+6+7)	563 2[illegible]	672 25	691 66	685 02
EXPENDITURE				
Total Expenditure	473 8[illegible]	636 51	686 61	712 04
Surplus (+) or Deficit (−)	+89 40	+35 74	+5 05	− 27 02

(*Report on Currency & Finance, 1957-58*)

CAPITAL BUDGET OF THE GOVERNMENT OF INDIA

(*Crores of Rupees*)

		1957 58		1958 59
RECEIPTS	1956 57	*Budget*	*Revised*	*Budget*
Total Receipts (Excluding Treasury Bills)	302 75	565 37	488 00	679 35

DISBURSEMENTS (Capital Outlay)				
Non-developmental ..	41.62	179.77	110.73	97.75
Developmental ..	232.89	370.80	351.10	393.60
Total Capital Outlay ..	274.51	550.57	461.83	491.35

(Report on Currency & Finance, 1957-58).

PUBLIC DEBT

CENTRAL GOVERNMENT DEBTS

Central—The interest-bearing obligations of the Government of India continued to rise from Rs. 3,676 crores at the end of 1956-57 to Rs. 4,216 crores at the end of 1957-58 and are expected to show a rise of Rs. 704 crores to Rs. 4,920 crores by the end of 1958-59. The internal obligations aggregated to Rs. 3,514 crores at the end of 1956-57 and Rs. 4,005 crores at the end of 1957-58 and are estimated to increase to Rs. 4,431 crores at the end of March 1959.

The Union Government floated in August 1957 two new cash-cum-conversion loans for a total sum of Rs. 100 crores, namely (1) 3 3/4 p.c. National Plan Bonds 1967 (4th series) at an issue price of Rs. 99. 50 p.c. (yielding to redemption 3.81 per cent and (2) 4 p.c. Loan 1972 issued at par. The total subscription to the new loans including conversions, amounted to Rs. 106 of which Rs. 57 crores was for 3 3/4 p.c. National Plan Bonds 1967 and Rs. 49 crores for the 4 p.c. loan 1972. In November 1957, Government made a further issue of 3½ per cent Bonds 1962 for Rs. 30 crores which was sold on tap to Institutional investors. *Net* borrowings of the Union Government during 1957-58 taking into account cash repayments, would amount to Rs 66 crores as compared to Rs. 77 crores in 1956-57.

For 1958-59, the budget provision for gross market borrowing is Rs. 145 crores. In May 1958, the Central Government floated three loans for a total sum of Rs. 135 crores. The total subscriptions amounted to Rs. 141.9 crores, of which conversions amounted to Rs. 9.5 crores.

Interest-yielding *assets* of the Government of India amounted to Rs. 3,396 crores at the end of March 1958, representing an increase of Rs. 489 crores over the year and constituted four-fifths of the total interest-bearing obligations. During 1958-59, the interest-yielding assets are estimated to show a further sharp rise of Rs. 591 crores to Rs. 3,987 crores.

Composition of Debt—At the end of March 1958, the total rupee debt amounted to Rs. 4,112 crores as against Rs. 3,508 crores at the end of 1956 57. The external debt accounted for an increase of Rs. 50 crores to Rs. 211 crores. During 1957-58, outstanding Treasury bills rose by Rs. 459 crores to Rs. 1,295 crores as against an increase of Rs. 241 crores in 1956-57.

Small Savings—Net collections from small savings are placed at Rs. 60 crores in the revised estimates of 1957-58 as compared to Rs. 59 crores in 1956-57 (actuals). Later data, which are also provisional, place net receipts at Rs. 69 crores in 1957-58 as compared to Rs. 62 crores in 1956-57. The net receipts in the first two years of the Second Plan were below the annual collections estimated in the Plan. The shortfall in net collections was largely on account of a decline in Post Office Savings Bank deposits.

Government Balances and Ways and means Advances—During 1957-58, cash balances of the Central Government with the Reserve Bank of India and at Government Treasuries showed a net decline of Rs. 7 crores to Rs. 47 crores as against an increase of Rs. 59 crores in 1956-57.

GOVERNMENT OF INDIA THREE MONTHS TREASURY BILLS

(Annual & Monthly)

(In Lakhs of Rupees)

Year	*Amount tendered*	*Amount sold*	*Average yield p.c. per annum*	*Amount sold in favour of the Reserve Bank*	*Amount outstanding at the end of the period*
1952-53	65,60	42,00	2.22	12,33,09	3,15,29
1953-54	91,38	56,50	2.45	13,09,06	3,34,95
1954-55	37,97	23,50	2.53	15,23,81	4,71,87
1955-56	86,25	55,50	2.52	19,94,09	5,95,25
1956-57	1,03*	1,00*	2.35*	27,37,58	8,35,70
1957-58	—	—	- -	42,36,65	12,95.12

INTEREST-BEARING OBLIGATIONS AND INTEREST-YIELDING ASSETS OF THE GOVERNMENT OF INDIA

(Lakhs of Rupees)

	1953-54	1954-55	1955-56	1956-57 (*Revised*)	1957-58 (*Budget*)
In India .	28,99,98	31,70,82	35.14,10	40,04,66	44,31,39
In England ..	27,26	23,20	22,25	22,32	21,44
Dollar Loans .	1,11.91	1,17,57	1,32,95	1,59,85	3,61.68
U.S.S.R. Loan	-	-	6,83	15.30	45,98
Loans from Germany	—	—	—	14,00	44,00
Loans from foreign sources ..	—	—	—	—	15,13
I *TOTAL INTEREST BEARING OBLIGATIONS* ..	30,39,15	33,11,59	36.76,13	42,16,13	45,19,62
II *TOTAL INTEREST-YIELDING ASSETS* ..	22,66.08	24,68,29	29,06,89	33,95,87	39,86,61

(Report on Currency & Finance, 1957-58).

Notes—Sales of Treasury bills to the public were suspended from December 20, 1949 to September 9, 1952, from April 20, 1954 to November 2, 1954 and again since April 3, 1956.

*Figures relate to the issue for one week only

DEBT POSITION OF THE GOVERNMENT OF INDIA

(Crores of Rupees)

End of March	*Marketable Rupee Loans*	*Treasury Bills*	*Small savings@*	*Other obligations*	*Total*	*P. C. increase(+) or decrease(—)*	*External debt*
1952	1,403.51	332.51	372.57	351.24	2,495.83	—0.9	136.99
1953	1,403.58	315.44	412.61	361.82	2,493.45	+1.4	138.53
1954	1,364.27	334,95	450,51	355.44	2,505.17	+0.5	136.44
1955	1,474.39	471.87	505.70	391.97	2,843.93	+13.5	133.20
1956	1,508.67	595.25	572.96	390.29	3,067.17	+7.8	138.81
1957	1,633.61	835.70	631.95	406.55	3,507.81	+14.4	160.98
1958	1,699.50	1,295.12	695.22	422.37	4,112.21	+17.2	211.02

CENTRAL GOVERNMENT LOANS

(Outstanding as on March 31, 1958)

(Thousands of Rupees)

3% Loan 1958	15,09,64
4½% 1958-68	5,85,73
3% 2nd Victory Loan 1959-61	1,13,65,64
2¾% Loan 1960	45,63,07
4% Loan 1960-70	63,30,26
2½% Loan 1961	57,00,69
3½% National Plan Bonds 1961	
2¾% Loan 1962	75,86,72
3½% Bonds 1962	87,27,36
3% Loan 1963-65	1,16,17,46
3% Loan 1964	30,33,10
3½% National Plan Loan 1964	1,58,17,90
3½% National Plan Bonds (2nd Series) 1965	1,03,67,92
3% Funding Loan 1966-68	1,10,11,78
3% Bhopal Loan 1966-76	1,21,73
3½% National Plan Bonds (3rd Series) 1967	33,81,83
3½ National Plan Bonds (4th series) 1947	56,99,15
3% 1st Dev. Loan 1970-75	1,15,05,83
4% Loan 1972	49,17,27
3¾% Loan 1974	66,63,53
3¾% Loan 1976	14,77,48
3% Hyderabad Loan 1951-61	6,59,00
2½% Hyderabad Loan, 1953-63	5,38,42
2½% Hyderabad Loan 1954-59	7,54,76
2¾% Hyderabad Loan 1955-60	4,23,60
4% Hyderabad Dev. Loan 1963	3,34,71
1¼% Hyderabad Loan 1964	3,85,71
4% Hyderabad Dev. Loan 1968	2,18,02
4% Hyderabad Dev. Loan 1968	2,18,02
2¾% Hyderabad Loan 1947	4,40,00
2¾% Hyderabad Loan 1975	6,85,71

3% Conversion Loan 1986 or Later	2,48,91,37	**Loans not bearing interest**	
3% Non-terminable Loan 1996-97	8,93 34	Central Gov Loans	3,54,01
		Hyderabad Loans	1,29
	16,33,60,51	Total ..	17,03,05,49

PRINCIPAL ITEMS OF SMALL SAVINGS

(Lakhs of Rupees)

	Total gross Receipts	Total Repayments	Total net Receipts	Total outstandings
1952-53 ..	1,16 83	1 06,78	40,05	1,80,85
1953-54	1 52 71	1 14 82	37 90	2,18,75
1954-55	1,77,32	1 22 14	55 18	2,73,93
1955-56	2 02 43	1 33,95	68 43	3,42,36
1956-57	2 25 90	1 66 91	58 99	4,01,35
1957 58	2,56 80	1 93,53	63 27	4,64,62

STATES' BUDGETS

Revenue Account—The consolidated budgetary position of States (Excluding Jammu & Kashmir) on revenue account since the reorganisations of State is shown as follows —

(Crores of Rupees)

	1957 58 (*Budget*)	1957-58 (*Revised*)	1958 59 (*Budget*)
Revenue	630 84	691 30	742 05
Expenditure	717 47	697 24	745 75
Surplus (+) or Deficit (—)	—86 63	—5 94	—3 70

1957-58 (Revised Estimates)—The revised estimates for 1957-58 place revenue higher than budget estimates by Rs 60 crores at Rs 691 crores and expenditure lower by Rs 20 crores at Rs 697 crores The deficit of Rs 87 crores in the budget estimates is thus reduced to a deficit of only Rs 6 crores While both tax and non tax revenue recorded increases, bulk of the increase in tax revenue was from shares of taxes received from the Centre and the proceeds from Railway Fare Tax which had not been included in the budget estimates. On the expenditure side, the decline was mainly accounted for by the development services

1958-59 (Budget Estimates)—The budget estimates for 1958-59 place revenue at Rs 742 crores or Rs 51 crores higher than 1957 58 (R.E) and expenditure at Rs 746 crores or Rs. 49 crores higher.

Consequently, the deficit is lower at Rs. 4 crores of the 13 States, only seven have made provision for additional taxation, yielding in the aggregate about Rs. 14 crores in a year. Taking into account the effect of tax proposals, only two States show revenue deficit, Uttar Pradesh of Rs. 4.5 crores and West Bengal Rs. 3.8 crores.

Capital Account—With receipts almost unchanged at Rs. 429 crores over the revised estimates for 1957-58 and disbursements lower by Rs. 9 crores at Rs. 436 crores, the budget estimate for 1958-59 envisages a deficit on capital account at Rs. 7 crores as against Rs. 16 crores in 1957-58 (R.E.). The total budget provision made for 1958-59 by eight States for market loans is Rs. 35 crores. On the expenditure side, total capital outlay (excluding State trading schemes) remains the same as in 1957-58 (R.E.) at Rs. 270 crores.

Jammu & Kashmir—Revenue and expenditure of Jammu & Kashmir State are estimated at Rs. 864 lakhs and Rs. 838 lakhs respectively in 1957-58 (R.E.) with a surplus of Rs. 26 lakhs as against a deficit of Rs. 115 lakhs in the budget estimates. Budget estimates for 1958-59 place both revenue and expenditure higher at Rs. 1098 lakhs and Rs. 904 lakhs respectively, showing a surplus of Rs. 194 lakhs.

STATE GOVERNMENT LOANS

(As on 31st March, 1958—Thousands of Rupees)

	Amount outstanding
MADHYA PRADESH	
3% Loan 1958 ..	52,70
3% „ 1960 ..	1,01,45
3½% „ 1962 ..	1,02,18
Madhya Bharat Dev. Loan 1963 ..	1,04,77
4% Dev. Loan 1963 ..	1,10,18
3% „ „ 1964 ..	2,03,29
4% M. P. Loan 1967 ..	1,63,12
4% M.P. Dev. Loan 1968	1,58,42
4% M.P. Dev. Loan 1968	1,11,26
	11,07,37
Madhya Bharat Dev. not bearing interest ..	30
	11,07,67
BOMBAY	
3% Porbandar Water Project Loan ..	35,00
3% Loan 1958 ..	2,95,12
3% Dev. Loan 1960 ..	2,83,50
3% Bhavnagar Bonds, 1960 ..	14,00
3% Bom. Tapi Irrigation Dev. Loan 1961 ..	67,93
3% Dev. Loan 1962 ..	5,49,68
3½% Dev. Loan 1962 ..	2,87,53
4% Do 1963 ..	5,19,35
4% Saurashtra Dev. Loan 1963 ..	1,11,62
4% Bom. Dev. Loan 1964	3,45,85
4% Saurashtra Local Bodies Dev. Loan 1964	2,51,30
4% Bom. Dev. Loan 1967 ..	9,72,28
4% Saurashtra Dev. Loan 1963 ...	3,56,23
4% Saurashtra Dev. Loan 1968 ..	2,70,80
4½% Dev. Loan 1969 ..	6,57,22
4% Bom. Dev. Loan 1970 ..	7,94,78
3% Land Revenue Abolition Compensation Bonds	19,03
	58,31,22
Loans not bearing interest	1,73
	58,32,95

State Government Loans—(*Concld.*)

ANDHRA	*Amount outstanding*
4% Andhra Dev. Loan 1967 ..	5,00,16
4% Andhra Dev. Loan 1968 ..	6,56,15
	11,56,31

BIHAR	*Amount outstanding*
4% Bihar Dev. Loan 1963	1,31,29
4% Bihar Dev. Loan 1967	1,54,02
4% Bihar Dev. Loan 1968 ..	2,13,41
	4,98,72

KERALA	*Amount outstanding*
3% Cochin Loan 1955-58	1,00,00
3½% Cochin Loan 1956-61	30,00
4% Travancore-Cochin Dev. Loan 1963 .	3,25,61
4% Travancore-Cochin Dev. Loan 1968 ..	2,22,08
	6,77,69
Loans not bearing interest	9,13
	6,86,82

UTTAR PRADESH	*Amount outstanding*
3% U. P. Loan 1958 ..	2,87,01
3% U. P. Loan 1960 ..	2,17,06
2¾% U. P. Loan 1965 ..	2,16,39
3% Loan 1961-66 ..	1,56,59
3½% „ 1962 ..	1,87,88
4% Dev. Loan 1963 ..	5,58,25
4% Dev. Loan 1964 ..	5,89,14
4% „ 1967 ..	9,39,16
4% Dev. Loan 1968 ..	8,61,55
3¼% U.P.E.E. Act Bonds ..	45,81,13
2½% U.P.Z.A. Rehabilitation Bond ..	4,51,99
..	91,93,10
Loans bearing no interest	3,62
	91,96,16

MADRAS	*Amount outstanding*
3% Loan 1958 .	1,07,92
3% Loan 1959 ..	1,23,96
3% Loan 1960 ..	2,78,44
3% Dev. Bonds 1960 ..	4,38,25
2¾% Loan 1961 ..	3,81,77
3½% „ 1962 ..	3,01,49
4% Loan 1963 ..	10,33,71
4% Dev. Loan 1963 ..	3,33,47
4% Loan 1964 ..	5,24,81
4% Loan 1967 ..	10,47,17
4% Loan 1968 ..	13,83,56
	56,21,08
Loans not bearing interest	94
	56,22,02

WEST BENGAL	*Amount outstanding*
3½% W. B. Loan 1962	1,75,00
4% W. B. Loan 1963 ..	3,60,23
4% „ „ 1964 ..	2,00,00
4% „ „ 1967 ..	7,58,72
4% „ „ 1968 .	7,11,46
	22,05,41

MYSORE	*Amount outstanding*
4% Loan 1953-63 ..	2,95,85
3% Loan 1956-61 ..	5,99,73
4% Dev. Loan 1967 ..	3,54,94
4% Dev. Loan 1968 ..	4,11,11
4½% Dev. Loan 1969 ..	3,33,78
	25,03,16
Loans not bearing interest ..	2,86,96
	26,15,84

PUNJAB	*Amount outstanding*
4% Loan 1968 .	2,03,86
ORISSA	
4% Gov. Loan 1968 ..	3,09,34
RAJASTHAN	
4% Dev. Loan 1968 ..	3,14,19
2½% Jagir Compensation Bond ..	71,40
	3,85,59

	Amount outstanding		*Amount outstanding*
Total of All States		Loans bearing no interest	3,02,12
Loan bearing interest	2,95,18,57		
			2,98,20,69

DEBT POSITION OF STATES

(Lakhs of Rupees)

	1955-56 (R. E.)	1956-57 (R. E.)	1957-58 (R. E.)
I. *Public Debt*			
(*a*) Permanent debt	264,48	270,73	286,54
(*b*) Floating debt ..	8,20	20,20	17,66
(*c*) Loans from Central Govt.	876,07	1,089,44	1,335,27
(*d*) Other debt ..	—	1,60	7,25
II. *Unfounded Debt* ..	83	94,36	102,01
III. *Gross Total Debt* .	1,231,94	1,476,33	1,748,73

The capital account is estimated to show deficits of Rs. 163 lakhs and Rs. 191 lakhs in 1957-58 (R.E.) and 1958-59 (R.E.) respectively. Taking both revenue and capital account together, the States would have a surplus of Rs. 3 lakhs in 1958-59 (R.E.) as against a deficit of Rs. 137 lakhs in 1957-58 (R.E.).

Debt Position of States—During 1957-58, the gross debt of States increased by Rs. 273 crores to Rs. 1749 crores as compared to a rise of Rs. 244 crores in 1956-57. The rise was mainly on account of loans from Central Government, which recorded a rise of Rs. 246 crores to Rs. 1335 crores. Permanent debt also increased by Rs. 16 crores to Rs. 287 crores. Floating debt, on the other hand, declined by Rs. 2 crores as against an increase of Rs. 12 crores in the previous year. During 1957-58, only two State governments, namely Bombay and Mysore, issued loans for 6 crores and 3 crores respectively. The total subscriptions amounted to Rs. 12.5 crores as against Rs. 9 crores offered.

Ways & Means Advances—During 1957-58, the average month-end Cash balance of State Governments with the Reserve Bank and at Government Treasuries at Rs. 5.0 crores was much lower than Rs. 17.5 crores in 1956-57; the balance at the end of 1957-58 at Rs. 1.5 crores was also lower by Rs. 10.1 crores.

CONSOLIDATED BUDGETARY POSITION OF STATES

(Crores of Rupees)

I. Revenue Account	1956-57 (*Budget*)	1957-58 (*Budget*)	1957-58 (*Revised*)	1958-59 (*Budget*)
Revenue ..	576.98	630.84	691.30	742.05
Expenditure ..	654.39	717.47	697.24	745.75
Surplus (—) or Deficit (—) ..	—77.41	—86.63	—5.94	—3.70

II. Capital Account				
Receipts	469.67	436.53	428.68	428.80
Disbursements	454.06	437.47	444.82	436.04
Surplus (—) or Deficit (–)	+15.61	—0.94	—16.14	—7.24
III. Miscellaneous (net)	+0.88	+1.78	—3.29	—3.56
IV. Increase (+) or Decrease (—) in cash balances	—60.92	—85.79	—25.37	—14.50
Opening Balance	41.05	26.57	23.87	—1.50
Closing Balance	—19.88	—59.22	—1.50	—16.00

BUDGETARY POSITION OF INDIVIDUAL STATE GOVERNMENTS

(Lakhs of Rupees)

	Total Revenue	*Total Expenditure*	*Surplus(+) Deficit(—)*
Andhra Pradesh			
1957-58 (Budget)	52,07	57,55	—5,48
1957-58 (Revised)	59,98	56,86	+3,12
1958-59 (Budget)	62,46	61,67	+79
Bihar			
1957-58 (Budget)	43,78	68,76	—24,98
1957-58 (Revised)	49,90	60,71	—10,81
1958-59 (Budget)	61,13	55,65	+5,48
Kerala			
1957-58 (Budget)	26,88	29,13	—2,25
1957-58 (Revised)	28,79	28,99	—20
1958-59 (Budget)	32,56	33,11	—55
Madras			
1957-58 (Budget)	57,40	66,74	—3,34
1957-58 (Revised)	59,81	59,76	+5
1958-59 (Budget)	63,34	63,19	+15
Orissa			
1957-58 (Budget)	21,37	24,55	—3,18
1957-58 (Revised)	23,43	22,77	+66
1958-59 (Budget)	26,73	26,15	+58
Rajasthan			
1957-58 (Budget)	28,70	31,51	—2,81
1957-58 (Revised)	30,01	31,57	—1,56
1958-59 (Budget)	33,24	33,04	+20
Uttar Pradesh			
1958-59 (Budget)	88.88	1,00,55	—11,67
1957-58 (Budget)	95,80	95,80	..
1957-58 (Revised)	99,41	1,03,95	—4,54

Budgetary Position of Individual State Governments—(*Concld.*)

	Total Revenue	*Total Expenditure*	*Surplus(+) Deficit(−)*
Assam			
1957-58 (Budget)	23,55	28,10	−4,61
1957-58 (Revised)	27.65	28,87	−1,22
1958-59 (Budget)	28,45	27,58	+87
Bombay			
1957-58 (Budget)	1,04,50	1,06,87	−2,37
1957-58 (Revised)	1.15,47	1.09,90	+5,57
1958-59 (Budget)	1,18,02	1,20,03	−2,01
Madhya Pradesh			
1957-58 (Budget)	48.60	52,08	−3,48
1957-58 (Revised)	48,97	48,73	+24
1958-59 (Budget)	53,79	52,69	+1,10
Mysore			
1957-58 (Budget)	35,68	45,04	−9,36
1957-58 (Revised)	42.06	43,77	−1,71
1958-59 (Budget)	49,12	48,98	+14
Punjab			
1957-58 (Budget)	38,51	41,32	−2,81
1957-58 (Revised)	40,43	37.85	+2,58
1958-59 (Budget)	45,83	47,91	−2,08
West Bengal			
1957-58 (Budget)	60.92	71,21	−10,29
1957-58 (Revised)	69,00	71,66	−2,66
1958-59 (Budget)	67,97	71,79	−3,82
Total			
1957-58 (Budget)	6,30,84	7,17,47	−86,63
1957-58 (Revised)	6,91,30	6,97,24	−5,94
1958-59 (Budget)	7,42,05	7,45,75.	−3,70
Jammu & Kashmir			
1957-58 (Budget)	7,23	8,38	−1,15
1957-58 (Revised)	8,64	8,38	+26
1958-59 (Budget)	10,98	9,042	+1,94

SCIENTIFIC PROGRESS IN INDIA

SCIENTIFIC RESEARCH IN INDIA—India has a long tradition of scientific research. It took pride of place in ancient India. Old Sanskrit texts bear witness to the high quality of research in medicine, astronomy and mathematics. But science was in eclipse in the middle ages and India began to lose her pre-eminence among the nations of the world. Science received little encouragement under British rule in India. In consequence, the country has remained backward in many respects. Official patronage was denied to science but it found devotees among the people. Proposals for industrial research were shelved on some pretext or other. Circumstances compelled the British to reverse their policy. With the advent of World War, India became the supply base for the Allied forces in the Middle and Far East. So Government of India sought the aid of science to make the most of the resources available within the country. Accordingly *The Board of Scientific and Industrial Research* was set up in 1940. With the experience gained in the working of the Board, the *Council of Scientific and Industrial Research* came into being in April 1942. The activities of the Council are financed mainly by the Central Government. With the advent of independence on August, 15, 1947, a separate portfolio was created for scientific research under the direct charge of Prime Minister Nehru. This was followed by the creation of the Department of Scientific Research on June 1, 1948, followed by the institution of a Ministry of Natural Resources and Scientific Research in 1951. Again the Education Ministry has been divided into the *Ministry of Education* and the *Ministry of Scientific Research and Cultural Affairs*

GOVERNMENT OF INDIA'S SCIENTIFIC POLICY—The Government of India announced its scientific policy in the following terms—(1) To foster, promote and sustain, by all appropriate means the cultivation of science and scientific research in all its aspects—pure, applied and educational. (2) To ensure an adequate supply within the country, of research scientists of the highest quality, and to recognise their work as an important component of the strength of the nation. (3) To encourage and initiate with all possible speed programmes for the training of scientific and technical personnel, on a scale adequate to fulfil the country's needs in science and education, agriculture, and industry and defence. (4) To ensure that creative talent of men and women is encouraged and finds full scope in scientific activity. (5) To encourage individual initiative for the acquisition and disseminaton of knowledge, and for the dscovery of new knowledge in an atmosphere of academic freedom. (6) And, in general, to secure for the people of the country all the benefits that can accrue from the acquisition and application of scientific knowledge.

ROLE OF INDIAN SCIENTISTS—The modern scientific research in India started only at the beginning of the century through the pioneering work of Sir P. C. Roy and Sir J. C. Bose. This was followed later by the brilliant investigations of Sir C. V. Raman, M. N. Saha, Birbal Sahni, S. N. Bose and Sir J. C. Ghosh.

India can boast of Nobel Prize winner in Physics in Sir C. V. Raman, the famous discoverer of "*Raman effect*"; significant work has been done by Sir C. V. Raman and his collaborators at Bangalore on the dynamics of crystals like diamond, rock salt and quartz. Work on optics has recently been initiated in the newly created Raman Research Institute at Bangalore, of which he is the director. Other famous scientists are—Sir J. C. Bose who won renown by his work in plant physiology; S. Ramanujam, the mathematical prodigy of India whose early death ended a career of great promise; Dr. M. N. Saha for thermal ionization and radiation; late Dr. Birbal Sahni, an authority in paleo-botany, who carried interesting work on the age of salt ranges of the Punjab; Dr. K. S. Krishnan, famous for his work on magnetism; H. J. Bhaba whose work on the cascade theory and ionisation of showers has won for him international reputation; P. C. Mahalanobis of statistics fame; late Sir P. C. Roy for mercurious nitrate, late Dr. S. S. Bhatnagar, well-known for his work on mercury nitrates; S. N. Bose of Bose-Einstein statistics fame; T. S. Venkataraman, the sugarcane expert; Sir J. C. Ghose, J. N. Mukherjee on colloid chemistry and soil research; Dr. Chandrasekhar for his contribution to astronomy and astrophysics; K. Venkataraman for his researches on dyestaffs; D. M. Bose famed for research work in magnetism and Dr. N. R. Dhar for scientific researches.

In the field of medical science, India was the first country to discover that micro-organisms are responsible for malaria and transmitted by mosquitoes. The diagnosis, prevention and cure of kala-azar have been made possible by the work of the late Dr. U. N. Brahmachari. Dr. R. N. Chopra has investigated the cictine principle of Indian medicinal plants and their pharmacological action.

MINISTRY OF EDUCATION AND SCIENTIFIC RESEARCH—From 17th April 1957, the former Ministry of Education was renamed Ministry of Education and Scientific Research. The Scientific Research Division of the former Ministry of Natural Resources and Scientific Research and its subordiate offices were transferred to the new Ministry of Education and Scientific Research. The reconstituted Ministry now consists of three Departments—(1) Department of Education (2) Department of Cultural Activities and Physical Education and (3) Department of Scientific Research and Technical Education. The Department of Scientific Research and Technical Education consists of—Scientific Research, Technical and Scientific Education, Vigyan Mandirs, All Polytechnics, All India Council for Technical Education, Delhi School of Town and Country Planning, Indian Institute of Technology (Kharagpur and similar institutions), Indian Institute of Science (Bangalore), Compilation of National Atlas, Geological Survey of India, Survey of India, Central Board of Geophysics, Botanical Survey of India, Zoological Survey of India.

Department of Atomic Energy—The work of the atomic energy was so long under the charge of the Ministry of Natural Resources, but from 1954 Government of India created a separate Department of Atomic Energy under the direct charge of the Prime Minister. This department is located at Bombay and has taken over from the Ministry of Natural Resources and Scientific Research all business connected with atomic energy.

Oil & Natural Gas Commission—The latest Industrial Policy Resolution of the Government of India, April 30, 1956 has decided that the future development of mineral oil should be the responsibility of the State. An organisation called "Oil and Natural Gas Commission" has already been set up under the Ministry of Steel, Mines and Fuel.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH—In 1940 the Government of India established a Board of Scientific Research, which was afterwards converted into the *Council of Scientific and Industrial Research.* Scientific research in India under the Government auspices is now carried out mainly through the Council of Scientific and Industrial Research and the various national laboratories or institutes set up under its control. The Council also awards grants-in-aid to scientists in research institutions and university laboratories, grants fellowships to qualified persons and circulates scientific knowledge and information. It maintains a National Register of Scientific and Technical Personnel in the country.

The Council is administered by a governing body with the Prime Minister as its President and the Minister for Scientific Research as Vice-President. Non-officials representing science, business and industry as well as the representatives of the Ministry of Finance, are included in the Governing Body. The Governing Body is advised by a Board of Scientific and Industrial Research consisting of eminent scientists and industrialists. The Government Departments interested in the industrial research are also represented The Board advises the Government on (a) proposals for the initiation of research concerning specific problems, (b) proposals from scientific institutions, including universities, for the study of problems realating to particular trades and industries and (c) proposals for the study and survey of indigenous resources as an esseitial preliminary to systematic investigations.

The Council is mainly financed by the Union Government. It has also income from royalties and premia on processes leased out, sale of publications, fees and charges levied for consultation, testing, etc. It receives gifts of land, buildings and finances from State governments and others, and donations from businessmen.

Following are some of the important works of the *Council of Industrial and Scientific Research*:—

It helps in the formation of industrial research associations.

It encourages fundamental and applied research in the universities and other research institutions through grants-in-aid.

Biological Research Committee has been set up by the Council for research in biology.

Radio Research Committee of the Council is functioning as the National Committee in India for the International Scientific Radio Union.

Vigyan Mandirs—The main objectives of the Vigyan Mandirs are to educate the villagers on the potentialities of the methods of science in their day-to-day life. Each Vigyan Mandir is equipped with a laboratory and manned by suitably trained and qualified personnel for undertaking analysis of soil, water, food, etc. There is also a small reading room, a scientific museum and a rural science club attached to each Vigyan Mandir. Each centre is provided with a film projector and a slide projector for showing scientific film or film strips on agriculture, public health and popular science, etc. They also possess a small library containing simple literature and pamphlets with the matters connected with the villege life. A small science museum has also been established in each of them.

Scientific Publications—Dissemination of scientific information is one of the important functions of the Council of Scientific and Industrial Research. An important development in the field of scientific research is the publication of *Wealth of India* as the dictionary of economic products and industrial resources of India. A comprehensive *National Register of Scientific and Technical Personnel* has been compiled by the Council. Information concerning over 22,000 technicians and scientists has already been published in this book.

The Council also brings out a monthly publication *Journal of Scientific and Induftrial Research* from 1942. The journal publishes research papers, reviews, scientific and technical articles, etc. The Council also publishes *Vigyan Pragati* in Hindi.

An Indian Science News-letter containing current news on scientific and technical work in India is issued fortnightly.

Funds have been provided for the translation into English of *Bharatya Jyotish Shastra* by the late Shankar Balkrishna Dixit, which is a source box of ancient and mediaeval Indian astronomy.

The publications relating to the activities of the 23 research committees under the Council of Scientific & Agricultural Research are brought out from time to time in the form of reports, monographs and bulletins.

National Laboratories—The establishment of a chain of national laboratories ranks as one of the major achievements of India since Independence. These National Laboratories seek to supplement the work of other research institutions of the country. The descriptions of these laboratories are given here—

National Physical Laboratory, New Delhi—It has nine divisions dealing with weights and measures, applied mechanics, heat and power, optics, electricity, electronics, acoustics, analytical chemistry and industrial physics. It has special laboratories for the study of semiconductors, ultrasonics, luminescence, low temperatures, etc. One main line of research is the practical utilization of solar energy which a country like India has great prospects. It was opened on January 21, 1950.

National Chemical Laboratory, Poona—It was opened on Jan.

3, 1950. Its functions are fundamental and applied research covering the whole field of chemistry.

Natoinal Metallurgical Laboratory, Jamshedpur—was opened on 26th November, 1950. It deals with fundamental and applied metallurgical research.

Central Fuel Research Institute, Digwadih, Dhanbad—was opened on 25th August, 1950. The Institute conducts research and applied research on fuels—solid, liquid and gaseous. Physical and chemical surveys of Indian coals are conducted through six coal survey stations under the Institute.

Central Glass and Ceramic Research Institute, Calcutta—was opened on 25th August, 1950. The Institute conducts research on different aspects of glass and ceramics, pottery, porcelain, refractories and enamels; development of processes for glass and ceramic articles ; standardisation of raw materials used in ceramic industry.

Central Road Research Institute, New Delhi—was opened on July 16, 1952. It conducts research on road materials, testing of road materials and road surfaces.

Central Food Technological Research Institute, Mysore City—It was opened on 21st October, 1950. The Institute studies the storage, conservation and processing of foodstuffs, refrigeration, new sources of food materials, and the production of food concentration, vitamins and dietetic products. An important branch of the institute's work is the economics of food production, also technical propaganda and information.

Central Drug Research Institute, 'Chattar Manzil,' Lucknow—was opened on February 1, 1951. This Research Institute has been set up with five main divisions with chemistry, botany, pharmacology, biochemistry and microbiology and clinical science. The Institute is conducting researchs on drugs which have been used by indigenous systems of medicine for hundreds of years. Medicinal plants and herbs are also being tested. The Institute will also work on synthetic drugs and anti-biotics.

Central Leather Research Institute, Madras—was opened on January 16, 1953. Hides and skins constitute an important item in Indian export trade. To provide proper facilities for research, a fullfledged Central Leather Research Institute has been set up in Madras. Its various sections will deal with leather testing, chemistry, bacteriology, microscopy and physics. The Institute will have a model tannery, a pilot plant and a workshop. Work here is devoted to the improvement and modernization of the leather industry in this country.

Central Electro-Chemical Research Institute, Karaikudi (Madras)—was opened on January 15, 1953. Several 'key' chemical industries depend on electro-chemical processes. In fact, some chemicals cannot be manufactured economically by other means. This Central Research Institute will thus help in the development of the chemical industry. The Institute will have two main divisions—electrolytic and electrothermic. The main object is to foster new

chemical industries, to expand the existing ones and also to improve their efficiency.

Central Building Research Institute, Roorkee—was opened on April 13, 1953. The institute deals with four principal groups of problems, namely (i) building material, (ii) methods of construction, (iii) performance of buildings and (iv) survey and information.

Central Salt Reserach Institute, Bhavnagar—was opened on the 10th April, 1954 It carries investigation for production of pure salts, reduction cost of production, economic utilization of by-products of salt manufacture.

Central Electronic Engineering Institute, Pilani, Rajasthan—was opened in Rajasthan in 1954. The object of the Institute is to undertake research and development on all aspects of electronic engineering Special attention is devoted to the utilization of indigenous raw materials for the manufacture of components, the development and use of electronic circuits for industry, the building of standard electronic instruments for test purposes, the electronic tools for medical profession, such as electro-cardiographs. It will also conduct investigations on radio techniques for civilian uses and on the application of electronotics in metallurgy.

National Botanical Gardens, Lucknow—It has been established for the collection, introduction and large scale cultivation of economic and medicinal plants of industrial importance. It also maintains a herbarium of economic plants.

Liaison between research and industry has been strengthened by the establishment of regional offices for industrial liasion at Bombay, Calcutta and Madras.

Sponsored Research—By the means of grants-in-aid, scientists in other research laboratories and universities are enabled to pursue fundamental and applied research and develop their own special fields.

Pilot Plants—are being established in the national laboratories for actual production, such as coke oven plant at the Central Fuel Research Institute and a pilot low-shaft furnace at the National Methalurgical Laboratory, Jamshedpur.

Engineering Research—With a view to initiating and co-ordinating research on different engineering subjects, ***the Board of Engineering Research*** was inaugurated in 1950. The Board, is assisted by five expert committees—(1) Civil Engineering Committee, (2) Mechanical Engineering Committee, (3) Electrical and Radio Engineering Committee, (4) Hydraulics Committee and (5) Aeronautical Engineering Committee

Medical Research—Medical Research is conducted chiefly under the auspices of the Indian Council of Medical Research, New Delhi. This Council also grants research fellowships. There is a Scientific Advisory Board which deals with technical questions, etc. ***Indian Research Fund Association*** was brought into being with the object of sponsoring research in subjects relating to medicine and public health Among the specialised institutes catering to research and public health, the following may be mentioned :—

(1) Central Research Institute, Kasauli ; (2) School of Tropical Medicine, Calcutta ; (3) Haffkine Institute, Bombay ; (4) King Ins-

titute, Guindy, Madras; (5) All-India Institute of Hygiene and Public Health, Calcutta; (6) Malaria Institute, Delhi; (7) Nutrition Research Institute, Coonoor; (8) Pasteur Institutes at Kasauli, Shillong and Coonoor; (9) Central Leprosy Research Institute, Madras; (10) Indian Cancer Research Centre, Bombay; (11) Drug Research Institute, Srinagar; (12) Central Drug Research Laboratory, Calcutta.

Agricultural Research—It had its beginning in 1929 with the starting of *Indian Council of Agricultural Research.* The primary function of the Council is to promote, guide and co-ordinate agricultural and animal husbandry education and research and its application through institutions belonging to Central and State Governments, the universities and other institutions.

The following are the main agricultural Institutes of India—(1) Forest Research Institute, Dehra Dun; (2) Indian Agricultural Research Institute, Delhi; (3) Indian Veterinary Research Institute, Mukteswar and Izatnagar; (4) Indian Dairy Research Institute, Bangalore; (5) Sugar Research Institute, Coimbatore; (6) Central Rice Research Station, Cuttack; (7) Cotton Technological Research Laboratory, Matunga, Bombay and its sub-station at Indore; (8) Central Jute Technological Research Laboratory, Calcutta; (9) Jute Agricultural Research Institute, Hooghly; (10) Indian Lac Research Institute, Ranchi; (11) Central Tobacco Research Institute, Rajamundry; (12) Bidi Tobacco Research Station, Anand; (13) Central Inland Fisheries Research Station, Barrackpur; (14) Central Marine Research Station, Fisheries, Mandapam; (15) Deep-Sea Fishing Research Station, Bombay; (16) Central Coconut Research Station, Kayamkûlam, Travancore; (17) Central Potato Research Institute, Patna; (18) Central Vegetable Breeding Station, Kulu, Punjab; (19) Fruit Research Institute, Sabour, Bhagalpur; (20) Sugarcane Research Station, Poona; (21) Sugarcane Research Station, Shahjehanpur.

Statistical Research—An important agency of the scientific research is the Indian Statistical Research Institute of Calcutta, originally founded as a small statistical laboratory. The Institute has developed into a big research centre with roughly 800 scientific and auxiliary workers. It maintains small branches and agencies in other cities and runs international courses in statistics for undergraduate and graduate students from south-east Asian countries.

Central Statistical Organisation of the Government of India has carried out valuable national sample surveys of manufacturing industries, land holdings, crops, employment & unemployment and also research on national income statistics.

National Research Development Corporation of India—has been established in December 1953. The Corporation will bridge the gap between research and its development in the production stage by financing practical trials of promising researches at existing factories or by installation of pilot or prototype plants. One of its main functions is to secure maximum utilization by industry of patents and inventions resulting from researches made by institutions and persons. Its scope covers inventions whether patentable or otherwise of national laboratories, other State-sponsored research institutions, universities and private individuals also where public interest so demands. Private enterprise is not always ready to take the risk of utilising new techniques and processes invented in the National Laboratories and other research institutions. For evaluating the commercial feasibility of new inventions and processes, the Government of India has established this Research Corporation. The Corporation is constituted as a State-owned private company under the provisions of the Indian Companies Act.

Central Board of Geophysics—This Board has been established as a co-ordinating body in Geophysics and as the National Committee in India for the international union of Geodary and Geophysics and also to arrange for the training of personal in Geophysics.

Scientific Liaison Office in London was set up in 1948 and is responsible for facilitating the movement of Indian scientists within the commonwealth and for providing adequate facilities for them and their work. It is also responsible for keeping abreast of the latest scientific and technical development and making all information available to India as well as for facilitating exchange on scientific information and experimental material, as also for attending scientific and technical conferences in the U.K. and Europe.

National Atlas Oraganisation—was set up to compile the national atlas of India in Hindi and English and in other regional languages of India. The Hindi edition of the national atlas was published in October, 1957. The Atlas depicts, for the first time, through maps the socieo-economic picture of the country as influenced by enviromental factors.

Indian National Scientific Documentation Centre—This centre provides documentation services to the national laboratories, scientific institutions, universities and industrial concerns for (1) the receipt of all scientific periodicals, (2) for supply of photostats and translation of articles for research workers, (3) for preparation and maintenance of an index of all scientific journals received, (4) for answering questions on scientific problems, (5) for supplying to the other parts of the world information about scientific work done in India and neighbouring countries. This Centre is the national repository for reports of the scientific work carried out in this country and is located at the National Physical Laboratory, New Delhi.

Research Associations by Industries—It is a very good sign that industries should organise research independently. So the Council is promoting research on a co-operative basis and research associations are being set up—(1) *The Silk and Art Silk Mills Association* collected Rs. 35 lakhs to establish a research institute for the industry. (2) *South Indian Textile Research Association* was constituted in 1951 to undertake co-operative research of the textile industry in South India. (3) *Ahmedabad Textile Industries Research Association* is sustained by the co-operative effort of the industry and the Government of India. It carries on research and scientific work in connection with the textile and allied industries. (4) The mill owners of Bombay promoted the *Bombay Textile Research Association* in 1954 with the object of establishing the Bombay Textile

Research Institute for conducting fundamental and applied research in textile technology and engineering.

Nuclear & Atomic Researches—A field of research in which India has made significant strides and ranks among the first half dozen nations is the nuclear science. The *Atomic Research Commission* was set up in August, 1948 under the Atomic Energy Act of 1948 for surveying the country for minerals in the release of atomic energy, to develop such minerals on an industral scale, to train the necessary scientific personnel and to foster fundamental research in nuclear science. A swimming pool reactor, designed and built by the personnel of the Atomic Energy Department at Trombay, went into operation on August 4, 1956. The reactor will produce isotopes for biological, medical and industrial research. An agreement has been signed with Canada under Colombo Plan for the construction of a high-power NRX reactor. This Canadian reactor is expected very shortly. A third reactor is also under construction. The Atomic Energy Commission is handling projects for heavy water production in conjunction with fertilizers at Nangal and at other suitable places and and has carried out geophysical surveys and launched upon drilling, mining and extraction activities in regard to thorium and uranium. The Atomic Research Commission spends several lakhs of rupees every year to promote research. The Board of Research on Atomic Energy and the Cosmic Ray Committee assist the Commission in carrying out its educational and research programmes at the Universities, the Tata Institute and other institutions.

Department of Atomic Energy was created by the Government of India in 1954 under the direct control of the Prime Minister to look after the scientific aspect of the work. This Department is located in Bombay.

An Atomic Energy Establishment has been set up at Trombay, Bombay. It is the chief centre for research and development in the field of atomic energy. The Establishment at Trombay consists of three main groups—the Physics, the Chemistry and the Engineering groups in addition to the Biology, Medical and Health Divisions. The Metallurgy Division was set up in 1955 for the production of uranium and thorium metals, powder, alloys, etc., and on designing equipments.

The Commission has been responsible for the setting up of the *Indian Rare Earths (Private) Ltd.*, at Alwaye in Kerala. This enterprise is owned jointly by the Governments of India and Kerala. The factory was set up at Always in 1953 for producing rare earth products and trisodium phosphate out of monazite sands and the thorium cake. A pilot plant for the extraction of uranium ore from copper tailings of the Indian Copper Corporation has been set up at Ghatsila. It is proposed to set up a pilot plant for the production of tintanium sponge metal from rutile and ilmenite sands available in India.

Travancore Minerals (Private) Ltd., was set up in October 1956 to take over the mineral sand industry of South India.

Heavy water is an essential material for the comprehensive atomic energy programme. It has now been decided that one of the new fertilizer factories which to be set up at Nangal in the Punjab, should be closely associated with the production of heavy water.

India has taken in earnest the nuclear research. The pioneer in the fields is the *Tata Institute of Fundamental Research* at Bombay, established in 1954. In addition to the training of students, it carries on fundamental research and advanced study in the field of nuclear physics and mathematics. Another research institute has been established in Calcutta known as Institute of Nuclear Physics.

Botanical Survey of India, Calcutta, carries on research on floristic and Geological Surveys. It collabrates with different universities in India and research centres on problems relating to flora in India. Systematic surveys of the floras of the country in underexplored and unexplored areas are undertaken by this organisation. It also undertakes to reprint flora and other publications including the records of Botanical Survey of India. The Botanical Survey of India has now under it the following organisations—(1) office of the Chief Botanist Calcutta (2) Central National Herbarium at Indian Botanic Garden, Calcutta (3) Industrial Section of the Indian Museum, Calcutta (4) Central Botanical Laboratory, Allahabad (5) Four Regional Circles, namely Eastern, Western, Northern and Southern Circles with headquarters at Shillong, Poona, Dehra Dun and Coimbatore.

Zoological Survey of India, Calcutta conducts research in systematic Zoology, animal ecology, ·Zoography and famistic surveys. Special researchs on locusts termites and high altitude insects are carried out. The preparation of a national zoogeographical atlas of India has been undertaken. Training facilities are provided to research scholars.

Survey of India—is a specialised organisation which produces up-to-date maps of various kinds. It has its own printing presses at Dehra Dun and Calcutta where maps, both for civil administration and for defence services, are prepared. Officers of the Department are trained at the Survey Training School at Dehra Dun. In 1951, *Survey Priorities Committee* has drawn up programme of expansion, which has been approved by the Planning Commission.

Anthropology in India—India was one of the earliest countries to start an ethnographical survey which it did in the year 1905 during the time of Lord Curzon. But the work was prematurely closed · down. A Department of Anthropology was started in the Calcutta University in 1921. In 1945 a scheme for the reorganisation of anthropological research was prepared by Dr. B. S. Guha and Dr. Seymour Sewell at the invitation of the Government of India and at the end of that year the nucleus of the Anthropological Survey of India was formed. In 1946 the Survey was definitely established with a five-year programme. It is now located at the Indian Museum, Calcutta. The Anthropology Department has well-equipped laboratories, both for physical and cultural research. Besides these, it has a big Ethnographical Museum and a well-stocked library of representative titles and research papers for reference. For convenience of work and due to the vastness of the country, the Anthropology Department has opened some sub-stations, one in the Andamans, another at Shillong and another centre at Nagpur.

The anthropological department of the Delhi University started functioning from August 1947. Lucknow University started the Department of Anthropology in 1950. During 1953 and 1954 several other universities of India, such as Saugar, Bihar, Baroda and Gauhati have introduced this subject in their curricula for teaching and research.

Geological Survey of India—This department was started in 1851. The function of the Geological Survey of India is to continue to prepare adequate geological maps for the whole country, explore mineral deposits, assess them on a regional scale, tender geological advice to important engineering projects, carry out geophysical prospecting for mineral deposits, and undertake the study of ground-water resources and connected matters. It also trains new recruits and post-graduate university students in geology and conducts courses of lectures at Presidency College, Calcutta and at Indian School of Mines, Dhanbad It has also following sections—Geo-physical Section, Engineering Geology Section, Ground-water Section and a Ground-water Exploration Section.

Departmental Researches—Several Departments of the Government of India have their own research centres or stations. Some of these are mentioned here—

(1) Eleven research stations under the Central Board of Irrigation and Power.

(2) The Central Water, Power and Irrigation Research Centre at Khadakvasla is the pioneer research hydraulic station in India.

(3) Directorate General of Civil Aviation has established a Research and Development Directorate.

(4) Forest Research Institute at Dehra Dun carries on research on timber.

(5) All India Radio has a research unit at Delhi for radio researches.

(6) Railway Board has a research centre at Lucknow with sub-stations at Lonavla and Chittaranjan to investigate problems referred to them by railway workshops and Central Standards Office (Railways).

(7) Indian Standards Institution lays down standard specifications for materials and products.

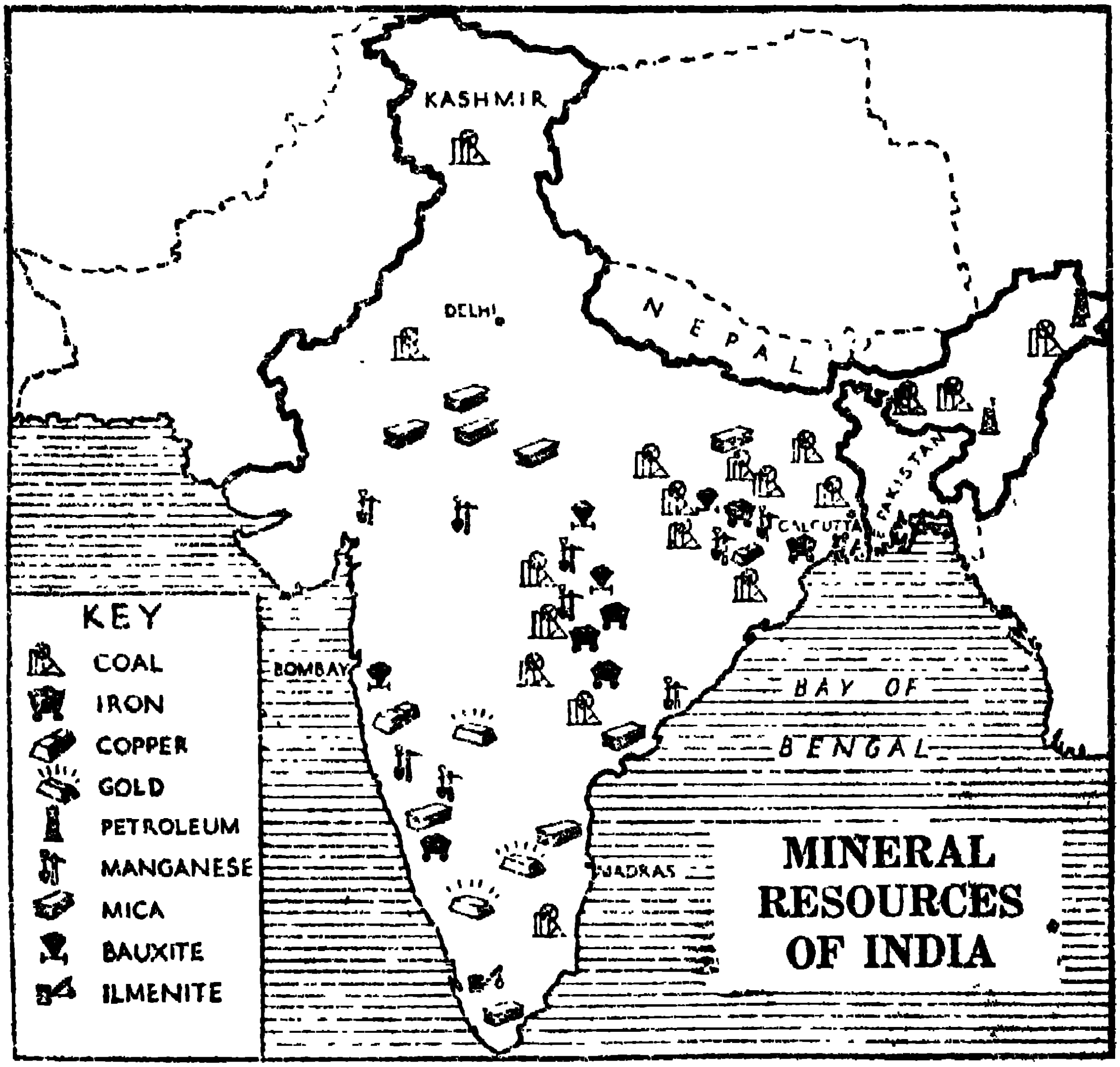
INDIA'S ASSOCIATION WITH INTERNATIONAL SCIENTIFIC UNIONS—India continues to be a member of the International Council of Scientific Unions and the following International Scientific Unions—(1) International Union of Geography (2) International Union of Geodesy and Geophysics (3) International Union of Astronomy (4) International Union of Pure and Applied Chemistry (5) International Union of Pure and Applied Physics (6) International Union of Biological Sciences (7) International Union of Crystallography (8) International Union of Theoretical and Applied Mechanics (9) International Union of History of Sciences (10) International Scientific Radio Union (11) International Mathematical Union (12) International Commission of Table of Constants (13) International

Federation of Documentation (14) International Bureau of Weights and Measures.

RESEARCH ORGANISATION—India has a number of older scientific and research organisations originally established in connection with universities or by private donations, but now considerably enlarged and financed by grants from the Central or State Governments. The earliest research society established in India is the *Royal Asiatic Society of Bengal* in the year 1748. There are many learned Scientific Societies scattered throughout the country. These institutions try to further knowledge in their respective spheres. *Indian Science Congress Association*, started in 1914, provides a common forum for the scientists of the country. Under its auspices, Indian and foreign scientists meet every year to discuss common problems and exchange ideas. *National Institute of Sciences* established in 1935 has been recognised by the Government as the premier scientific organisation engaged in co-ordination between scientific academies, societies, institutions and Government scientific departments and services. Other learned societies in various parts of India are—(1) Agricultural and Horticultural Society of India, Calcutta, (2) National Institute of Sciences of India, Delhi, (3) Indian Research Fund Association, (4) National Academy of Sciences, Allahabad, (5) Indian Academy of Sciences, Bangalore, (6) Mining and Geological Survey of India, (7) Mining and Metallurgical Society, (8) Indian Society of Social Sciences, (9) Entomological Society of India, (10) Horticultural Society of India, (11) Indian Dairy Association, Bangalore, (12) Central Research Institute, Kasauli, (13) Central Road Research Institute, Okhla, New Delhi, (14) Central Water and Power Station, Poona, (15) Drug Research Laboratory, Jammu, (16) Hydraulic Research Laboratories, Poona, (17) Indian Central Cotton Committee Technological Laboratory, Bombay, (18) Indian Tea Association Research Institute, Tookla, Assam, (19) Ionospheric Research Station, Haringhatta, Calcutta. (20) Oil Technological Institute, Anantapur, Madras, (21) Tata Institute of Fundamental Research Institute, Bombay, (22) Engineers' Association of India, Calcutta, (23) Bose Institute, Calcutta carries on research in Physics, Chemistry, plant physiology, plant breeding, biology and zoology, (24) Birbal Sahani Institute of Palasco botany, Lucknow carries on research in the fossil flora of India, (25) Indian Association For Cultivation Of Science, Calcutta conducts post-graduate research in fundamental and applied aspects of physics & chemistry, (26) Physics Research Laboratory, Ahmedabad carries on research in atmospheric physics, cosmic rays and theoretical physics.

INDIAN MINERALS

Position of the Indian Minerals—India may be said to be quite rich in mineral wealth. Her reserves of coal, iron and metals required for ferro-alloys are quite impressive. India's present place in the world of mineral-producing countries rests very largely on her position as the second largest producer of manganese and of ilmenite, on her reserves and quality of mica and, to a lesser extent, on her reserves of magnetite and bauxite.



The total reserve of coal in India down to the depth of 2,000 feet has been estimated at 66,000 million tons, while the reserve of coking coal at more than 2,000 million tons. India is endowed with very large deposits of iron ore and other raw materials to make her one of the most important producers of iron and steel in the world. Only the good quality ores containing 60-65 per cent of iron, low sulphur and variable phosphorous have been examined and the reserves estimated at about 21,000 million tons. India has considerable reserves of manganese ore of high grade quality, which is estimated at 112 million tons. In petroleum, however, India's reserves are limited. The only proved oilfield is in Upper Assam which produces about 7 per cent of India's oil requirements. Reserves of chromite are estimated at more than 1,320,000 tons. India leads in the production of ilmenite, the principal ore of titanium. The total reserves are estimated at about 250 million tons. There are large reserves of vanadium leaving titaniferous iron ores in Bihar and Orissa. Reserves of tungsten ores in Jodhpur and Bikaner are small. The only copper mine is in Singhbhum which satisfies 1/8th of India's needs. India is self-sufficient in aluminium ore (bauxite). The total reserves as per estimate is about 250 million tons. India is deficient in lead, zinc, antimony, tin, platinum, selenum and tellurium. India's gold comes from Kolar field in Mysore and Hutti mines in Hyderabad.

India has adequate supply of structural materials like limestone, clay, sand, gypsum. India's position is also satisfactory regarding mica, graphite, magnesite, kyanite and sillimanite needed for refractory and insulation purposes. India's reserves in mica, kyanite and sillimanite are very high. India produces 80 per cent of the world's supply of mica. Largest deposits of kyanite and sillimanite are found in India. India has limited resources in short fibre asbestos and high grade graphite India is deficient in borates, iodine, potash, sulphur, nitrates and phosphates. There is an excellent deposit of talc in India

India's geologists and geophysicists have been active and over last few year a number of important discoveries have been made: white sand suitable for cement has been found in Madras, Fuller's Earth in Hyderabad, pyrite deposists in Bihar, calcite in Saurashtra, galena in Mysore, iron ore in Orissa and coal in Madhya Pradesh, which are among the many notable mineral deposits located.

FOUR CATEGORIES OF INDIA'S MINERAL RESOURCES— The mineral resources of India can be divided into four categories—(1) minerals of which India's exportable surplus can dominate world market, (2) minerals of which the exportable surplus forms an important factor, (3) minerals in which it appears that the country is at present self-sustaining and (4) minerals for which India has to depend largely or entirely on foreign imports. To the first category belong iron ore, titanium ore and mica, while the exportable surplus under the second head includes manganese ores, bauxite, magnesite, refractory minerals, natural abrasives, steatite, silica, gypsum, monumental granites, monazite, courndum and cement materials. In the number of minerals including coal, aluminium ore, mineral pigments, sodium salts and alkalies, rare earths, beryllium, glass sand, nitrates, zircon and phosphates, the country is known to be self-sufficient. And lastly, the following are the minerals for which it has to depend solely on imports: copper, silver, nickel, petroleum, sulphur, lead, zinc, tin, flourides, mercury, tungsten, molybdenum, platinum, graphite, asphalt and potash.

MINES AND MINERALS CONSERVATION—With the achievement of independence, Government of India felt the great need of statutory rules for the conservation of mineral wealth and for the regulation and grant of mineral concessions. Thus the *Mines and Minerals (Regulation and Dovlopment) Act* was passed in September, 1948. The Central Government assumed the responsibility to co-ordinate the policy of States for mineral development and the issue of leases. The Central Government is also following an active mineral policy to control mining and the consumption of minerals of fundamental and strategic importance.

The Industrial Policy Resolutions of the Government of India on April 6, 1948 and also of 1956 explicitly recognised minerals amongst the industries whose location must be governed by economic factors of all-India import or which require considerable investment or a high degree of technical skill and must consequently be the subject of Central regulation and control.

GOVERNMENT DEPARTMENTS—*The Ministry of Steel, Mines and Fuel* of the Government of India has two Departments—*Department of Iron and Steel and Department of Mines and Fuel.* This Department of Mines and Fuel has the following offices and organisations—(1) Geological Survey of India (2) Indian Bureau of Mines (3) Oil and National Gas Commission (4) Office of the Coal Controller (5) Coal Board (6) National Coal Development Corporation Ltd. (7) Neyveli Lignite Corporation Ltd.

The Department of Mines and Fuel is responsible for following subjects—(*i*) Mines and Minerals including the Indian Bureau of Mines, special mining projects and the Geological Survey of India (*ii*) Fuels, including coal, lignite, oil and natural gas including exploration, drilling, existing and future refineries, distribution and pricing. This Department has three major Divisions—Coal and Lignite Division, Mines Division and Oil Division. Apart from the work above mentioned, this Department also deals with the administration of the Mines and Minerals (Regulation and Development) Act, 1944.

The following are the important organisations concerning mining in India—

Geological Survey of India—was established in 1951. It is responsible for the preparation of the geological map of India which forms the basis for all geological work including the appraisal of the mineral resources of the country. It is headed by a Director with his headquarters at Calcutta. For the purposes of fixed work, the entire survey region is divided into the following eight circles—Northern circle, western circle, central circle, Andhra circle, Bihar Circle, Orissa Circle, Eastern Circle and Southern Circle.

Mineral Information Bureau has been set up in 1948 to give information and advice to industries. The main function of the Bureau is the dissemination in non-technical language of facts relating to Indian minerals, fuels, iron ore, ferro-alloy minerals, light and base metal minerals, precious metals, gems, minerals for chemical industries, industrial clays, sands and miscellaneous minerals.

Indian Bureau of Mines was created in 1948 with headquarters in Delhi to function as a body of expert advisers to the Government of India on all matters relating to mineral development. The Bureau is today the chief national agency for discharging the various duties devolving on the Central Government under the Mines and Mineral (Regulation and Development) Act, 1948. Bureau of Mines will have to inspect mines to effect general improvements in mining methods, plan for the recovery of the largest possible quantity, to conserve mineral wealth, eliminate waste in mining, processing and utilization; use modern methods of prospecting to locate mineral deposits ; advise Central and Provincial Governments on questions relating to mineral concessions, royalty, rents, taxation, tariff and export policies ; provide analytical and testing facilities for producers of, and traders in minerals, etc.

The Mines Conservation and Development rules came into effect on April 1, 1955 and since then the responsibility for the inspection of mines as well as the collection, processing, tabulation and interpretation of mineral statistics has fallen to the Bureau which collects quarterly statistics for nine important minerals covering about 2,000 mines and receives annual returns for other major minerals covering 880 mines.

Oil and Natural Gas Commission was set up in April, 1955. The headquarters of the Commission is at Dehra Dun. This Commission is responsible for the exploration, exploitation and refining of the country's oil and natural gas resources.

A *Mineral Advisory Board* was set up during 1953 to advise the Government on all matters concerning the mineral industry. It advises the Government on the export and import tariffs on minerals and mineral products. It reviews the production, internal distribution and consumption of minerals. So far as coal is concerned, the Ministry has the following organisations—(1) Coal Controller, Calcutta (2) Coal Board, Calcutta (3) National Coal Development Corporation Ltd., Ranchi (4) Neyveli Lignite Corporation Ltd., (5) Coal Council of India.

MINING EDUCATION—*The Indian School of Mines and Applied Geology* opened in 1926 at Dhanbad imparts high-grade technical training in Mineral Engineering and Applied Geology and offers a four-year diploma course in these subjects. Besides the two main subjects, the ciruculum includes detailed instruction in allied and subsidiary subjects, such as electrical and mechanical engineering, chemistry, fuel technology, metallurgy and assaying, physics, mathematics, and foreign languages. At the end of four years, the successful students are awarded the Diploma of Associateship of the Indian School of mines in mining, engineering or applied geology, as the case may be. The school has been thoroughly reorganised on the recommendations of the Reorganisation Committee. The new curriculum lays special emphasis on subjects like metallurgy, fuel technology, refractories and ceramics. A new Faculty of Mining and Applied Geology has been established at the Indian School of

Mines, Dhanbad, which will be linked to Bihar University and will be known as the National School of Mines.

The Dhanbad School of Mines and Applied Geology has been reorganised to turn out a larger number of technicians every year. Mining education is also imparted at the Banaras Hindu University which has a *College of Mining and Metallurgy.*

GOVERNMENT'S ROLE AND MINERAL POLICY—The Industrial Policy Resolutions of the Government of India published on April 6, 1948 and in 1956 explicity recognised minerals amongst industries whose location must be governed by economic factors of all-India import or which require considerable investment or a high degree of technical skill and must consequently be the subject of central regulation and control.

The Government's role in the future development of India's mineral wealth was clearly laid down when the second Five-Year Plan was begun in April, 1956 and future mineral development will be the exclusive responsibility of the State in so far as it concerns atomic energy minerals, iron and steel, coal and lignite, mineral oils, mining of iron, manganese, chrome, gypsum, sulphur, gold, diamonds, copper, lead, tin, zinc, molybdenum and wolfram. All other minerals, except minor minerals, almunium and other non-ferrous metals not included in the first category, will be progressively owned by the State.

In September 1948, Indian Parliament passed the historic measure—*Mines and Minerals (Regulation and Development) Act,* 1948. The Act applies to all minerals, including oil. It extends to all States, including Centrally-administered areas. It gives powers to Central Government to frame rules for the regulation of the terms and conditions of prospecting licences and grant of leases, for the conservation and development of minerals, and for the modification of existing licences and leases on payment of compensation. The ownership of mines and minerals continued to vest in the States, and State Governments will continue to grant concession and collect royalties and rents as hitherto. The Act empowers the Central Government to undertake prospecting and mining operations on any land or in respect of any mineral which is the property of the State.

DESCRIPTION OF MINERALS

Coal—is the most valuable mineral product and India stands seventh in the world. The bulk of Indian coal is concentrated in one enormous series of deposits known as "*Gondawana system.*' A little over 98 p.c. of Indian coal is raised from Gondawana coal beds and about 2 p.c. from tertiary beds. This system stretches across Bengal, Bihar, Orissa, Central India, Madhya Pradesh and Hyderabad. The tertiary beds are found in Assam and Rajasthan. A little coal is produced in Andhra Pradesh. Bengal and Bihar coalfields are the sources of the best varieties of coal and it is also the only source of varieties of coal which can be used directly for metallurgical purposes. The coal found, broadly speaking, is of four types, *peat, lignite, bituminous,* and *anthracite.* The coal-fields of Bihar and West Bengal account for about nine-tenths of India's output.

Jharia and Raniganj are the principal coal-fields and from them about 70 p.c. of total output is obtained. There are important deposits of coal in Bihar, West Bengal, Madhya Pradesh, Vindhya Pradesh, Orissa and Hyderabad. Tertiary coal and lignite deposits occur in Assam, Kashmir, Rajasthan, Madras and Kutch. A new coal field has been found in the Rangit Valley in Sikkim.

The total reserve of coal in India down to the depth of 2,000 feet has been estimated at 66,000 million tons, while the reserve of coaking coal, etc. at more than 2,000 million tons.

India has now nearly 1,000 coal mines. The total output of coal at present is in the neighbourhood of 34 million tons. Of the total production Bihar accounts for 55 per cent., Bengal 28 per cent., M.P. 6 per cent., Hyderabad 4 per cent., etc.

A *Fuel Research Institute* at Digwadih, near Jharia, has been started in 1949. The function of the Institute is to make survey of Indian coals and to carry out researches on processing with a view to manufacturing metallurgical coke and investigation on low-temperature carbonisation and tar distillation for dyes, drugs, plastics, explosive and synthetic liquid fuels.

Stowing in Mines—Stowing is a process in mining operation, particularly in coal mining, in which any of the void created by the extraction of coal is filled with stowing material. The purpose of such operation is safety to the men working in the mine, which prevents premature collapse, surface subsidence, underground fires, expulsion of inflammable gas from open graves, which might result in an explosion. In 1941 Coal Mines Stowing Board was formed. It undertook to supress the fire both in Jharia and Raniganj coal-fields.

Government of India have appointed a *Coal Board* to deal with all problems relating to coal from a comprehensive point of view. It has enforced the stowing, blending and washing of coking coal. Coal Board is also taking steps to bring about mechanisation of industry. Under the *Coal Mines (Conservation and Safety) Act*, 1952, the Central Government is empowered (1) to adopt measures for the safety of coal mines or for conserving coal, (2) to authorise the Coal Board to deal with problems of the industry, (3) to levy excise duty on coal and coke, (4) to frame rules for regulating the industry.

Manganese—India ranks second in the world in the output of this mineral. The total estimated reserve of this mineral is 11.2 crore tons. Its chief use is in the manufacture of steel. It is also extensively used in the chemical industry and in the making of dry cell batteries. About 10 crore tons are in Madhya Pradesh and Bombay. The manganese mines of Madhya Pradesh contain some of the best known manganese ore deposits of the world. Deposits now being worked are in Singhbhum (Bihar), Panchmahal (Bombay), Balaghat, Bhandara, Chhindwara, Nagpur (Madhya Pradesh), Indore (Madhya Bharat), Visakhapatnam, Sundar (Madras), Shimoga (Mysore); Bonai, Keonjhar, Koraput, Patna State (Orissa) and Banswara (Rajasthan). Madhya Pradesh produces two-thirds of all-India production. Principal customers of manganese are United Kingdom, France, U.S.A., Norway, Canada and Belgium.

Lignite—is a soft brown type of coal retaining the texture of wood from which it originated. From it are obtained a number of valuable products, among them being petroleum and diesel oils, waxes and hydrocarbon gases. Lignite quarry is situated at Neiveli in South Arcot district. It is 24 miles from Cuddolore and about 135 miles south-west of Madras. It is also available in Rajasthan, Saurashtra, Kutch and Kashmir. Lignite, though a member of the coal family, is different from commonly-used bituminous coal, in that it contains a relatively high proportion of moisture. In the S. Indian lignite, the proportion is computed at 30 p.c. to 35 p.c. The total estimated reserve of lignite in this area is 2,000 million tons.

Gold—takes the third place in India, which is mined in the State of Mysore in Kolar, from where 95 per cent. of India's output of gold comes. India's production of gold is only about two per cent. of the total world production (excluding U.S.S.R.). The average grade of ore treated in Kolar is 6.83 cwt. gold per ton of ore. The only other working mine, Hutti in Hyderabad produces small quantities of gold. Goldbearing veins are also known to exist in Dharwar district of Bombay, Wynaad and Anantapur districts of Madras and at Lowa in the Manbhum district of Bihar. Alluvial gold is found widely distributed in many parts of the country—Assam, Bihar, Orissa, Madhya Pradesh, East Punjab, Uttar Pradesh, Kashmir and West Bengal, but the only sources of gold of any type are at Kolar and Hutti.

Kolar Gold Mines Acquisition Act, 1956 has been passed to nationalise the mines. The Act empowers the State Government of Mysore to acquire the companies, namely, Mysore Gold Mining Co., (KGF) Ltd., Champion Reef Gold Mines of India, Nandidrug Mines Ltd., and Kolar Mines Power Station Private Ltd. The gold mines have been taken over from 29th November, 1956.

Mica—India enjoys three main mica belts, situated in Bihar, Rajasthan and Madras. Bihar has the biggest field, estimated to cover some 1,500 sq. miles ; Rajasthan's mica is spread over 1,200 sq. miles and the Madras field is only half that area. The richest veins are those of Bihar ; they yield a high grade muscovite ruby mica (said to be the best in the world) ; from Rajasthan comes ruby, green and other sorts of mica ; and Madras finds mostly the green and black stained varieties. New deposits are believed to have been located in Travancore, Mysore and Orissa. Mica is an indispensible item in the manufacture of electrical appliances and in the construction of motor cars, aeroplanes, radio-stores, flat-irons, window panes and many other products. Mica finds no market in India and producers must depend on foreign sale for their living. She supplies about 80 per cent of the world's requirements of good quality mica. United States takes nearly 60 to 70 per cent of the total mica exports from India, second biggest importer of Indian mica is the United Kingdom. Mica factories in India are regarded "as cottage industry" establishments, for they generally operate without the benefit of mechanical power and the mica is dressed and processed or semi-processed by hand.

The main use of mica is for the electrical and technical industries. The next important use of mica is in the shape of micanite by electrical engineers, colliery companies, manufacturers of iron, steel and electrical apparatus. Waste and scrap mica is ground and used for wall-paper industry, manufacture of paints, rubber industry, etc.

Petroleum—is the last of five important minerals of India. India contributes only 1.10 per cent. of the world's production. India is producing 0.40 million tons of petroleum mainly from Digboi oil fields against an annual consumption of 5 million tons. The rest of India's oil need is met by importing crude oil and refining it at the refineries recently started near Bombay.

Realising the importance of mineral oil in India's developing economy, the Government of India in the last Industrial Policy Resolution of April 30, 1956 have decided that the future developments of mineral oil will be the responsibility of the State.

The following places are being explored for oil exploration—Jwalamukhi and neighbouring areas in the Punjab, Rajasthan, Ganga Valley, West Bengal and Orissa, Cambay, Kutch and some other areas in Madras, Andhra and Kerala. Recently oil field has been found in Naharkatia, Assam, where oil is being dug at 10,000 ft. below.

The Government of India signed an agreement with the Standard Vacuum Oil Co. Ltd. for joint exploration for petrolium in West Bengal basin. In addition, departmental exploration for oil was initiated in 1955-56 in the Jaisalmer area of Rajasthan. Three oil refineries have been started in this country—two in Trombay Island, Bombay and one in Visakhapatnam. Another oil refinery is being started at Gauhati, Assam for which a rupee-company has been formed.

The Government of India have set up a high power *Oil and Natural Gas Commission* to undertake exploration, exploitation and refining of mineral oil in the country. The Commission is located at Dehra Dun.

Iron—India possesses some of the world's largest reserves of iron ore, mainly hematites and magnetites with iron content ranging between 60 and 70 per cent. Extensive deposits of iron ore occur in several parts of India, namely, Bihar, Orissa, Madhya Pradesh, Andhra and Mysore. Few, even amongst the greatest production countries of the world, can claim a higher percentage. The iron ores of India can be conveniently divided into three groups, namely, hematite ores, magnetite ores and laterite ores and iron-stone shales. Large deposits of hematite ores are known in Bihar, Orissa, Madhya Pradesh, Mysore and Bombay. Magnetite ores occur in Madras, Mysore, Bihar, Orissa and Himachal Pradesh. Extensive reserves of laterite ores and iron-shales are present in West Bengal, but these are not used at present. India's iron ore reserves are estimated to be of the order of 2,100 crore tons and the major part of it is of high grade. The ambition of the Indian Government is to push up production of iron from 4.6 million tons today to 12.5 million tons per year by the end of the Second Plan Period (1956-61); of this about 6 million tons of the iron ore will be required for the three Government-sponsored steel works in Rourkela, Bhilai and Durgapur.

Salt—With a coast line of about 3,500 miles, inland sources in Rajasthan and Little Rann of Kutch and the rock salt mines in Mandi, India has possiblities of attaining a high position among the salt-producing countries of the world. India now claims to be self-sufficient in all qualities of salt, with the exception of rock variety. Salt is produced by solar evaporation on almost all the coasts of India, but particularly on the south-west and near Bombay. The principal salt producing areas are located in Saurashtra, Madras, Bombay, Rajasthan, Kutch, Travancore-Cochin and Orissa. The only one source of rock salt is at Mandi in Himachal Pradesh which produces annually one lakh maunds of crude rock salt. Besides the existing model farm and Salt Research Station at Wadala in Bombay, Central Salt Research Institute was establised in 1954 at Bhavnagar in Saurasthra. The principal centres of salt manufacture are as follows—(1) *Marine Salt Works*—(a) Saurashtra and Kutch (Bhavnagar, Jarffrabad Jamnagar, Lavanpur, Porbondar, Bharai and Kandla), (b) Bombay (Dharasana, Bhoyandar, Bhandup, Uran and Mithapur), (c) Madras (Nanpada. Pennuguduru, Madras, Cuddalore, Adirampatnam and Tuticorin), (d) Orissa (Puri, Huma, Gokhurkuda and Sumadi), (e) West Bergal (Contai), (f) Travancore-Cochin—along the coast; (2) *Salt Mine*—Salt mines in Mandi (Himachal Pradesh); (3) *Inland Sources*—(a) Rajasthan (Sambhar, Didwana and Pachbadra), (b) Bombay & Saurashtra (Kharaghoda and Kuda) and Rann of Kutch.

Chromite—is mainly used as an alloy and refractory. It comes mainly from Bihar, Orissa and Mysore.

Ilmenite—One of the most striking features of India's mineral industry is the rapid rise in the production of *ilmenite*. India has now become the world's leading producer of this metal. It is the whitest of all substances and will replace lead more and more in the manufacture of white pigment. The mineral occurs along the beach-sands of the eastern and western coasts of India. The total reserves are estimated at about 3,500 lakh tons.

Monazite—is available on the beach-sands of Kerala State and also on the beach-sands on the Coromondal Coast, existing in the form of beach-sands in association with ilmenite and is perhaps the largest and the richest in thorium in the world and also contains a small quantity of uranium. In order to conserve supplies for atomic energy development, exports are now prohibited under sec. 3 of the Atomic Energy Act XXIX of 1948. A factory for processing over 1,500 tons a year of monazite beach-sands has been recently set up by the Government of India at Always (Kerala).

Orches—are well-known as mineral earth pigments. Occurances are fairly widespread in India; chief producing areas being Madhya Pradesh, Vindhya Pradesh and Saurashtra. The entire production is retained for internal consumption.

Saltpetre—occurs as natural efflorescence in extensive areas in Bihar, U.P. and East Punjab. Crude saltpetre is used as manure, while refined saltpetre is consumed in the manufacture of fire works, blasting-powder, soap and matches and in glass, ceramic and tanning industries.

Zircon—The Travancore beaches constitute one of the principal sources of zirconia in the world. Zircon yields zirconia, a high grade refractory and also an alloy material.

Zinc—Zawar mines in Jodhpur are the only important source of zinc ore in India, which are being worked to produce enough to meet much of her needs in the near future. India's resources are, however, poor.

Beryl—is found in small quantities in certain rocks which contain generally mica mines. India has been a large producer of beryl, chiefly from Rajasthan, Madras, Kashmir and Bihar.

Chromite—India has only moderate resources of chronite ore. It is both an alloy and a refractory. India's known reserves of chromite are approximately more than 1,320,000 tons. The more important deposits are distributed as follows—Singhbhum & Bhagalpur (Bihar), Ratnagiri (Bombay), Salem and Kistna (Madras), Mysore, Hassan, Kadur and Chitaldrug (Mysore), Keonjhar (Orssia), Ladakh (Kashmir). The deposits are being worked at present in Singbhum, Keonjhar, Kistna, Mysore and Hassan districts.

Magnesite—is valuable to cement, glass, paper, rubber, cosmetics refractories and aircraft industries. India's magnesite deposits are in the States of Bihar (Singhbhum), Kashmir, Madras (Salem), Mysore, Rajasthan and Uttar Pradesh, Almora. By far the largest and the best magnesite deposits in India occur in the Salem district of Madras.

Bauxite—Indian bauxite reserves are estimated to be of the order of 250 million metre tons and are mainly found in Bihar, Madhya Pradesh, Orissa, Madras, Bombay and Kashmir. India started mining bauxite in 1908. It is largely used as filtering material in petroleum refineries and for the manufacture of alum.

Cement—The ingredients of cement are all available in abundance in India. The principal cement producing centres are Porbandar in Kathiawar, Katni in M. P., Lakheri in Rajasthan, Jabalpur in M.P., Guntur in Madras, etc.

Kyanite—Perhaps the largest deposits of Kyanite in the world are found in India, which is the most important of the minerals used in the refractory and ceramic industries. Good workable deposits of kyanite occur in Seraikella and Kharswan in Singhbhum district, Bihar. Smaller deposits are also known to occur in the Mayurbhanj district of Orissa, in the Nellore district of Madras and in the Hassan district of Mysore. The Lapsa Buru deposit of Kharswan (Bihar) is the largest of its kind in the world and is the principal centre of production.

Feldspar—Workable occurances of feldspar are located in the

States of Ajmer, Bombay, Bengal, Bihar, M. P., Madras, Mysore, Rajasthan and Vindhya Pradesh. The entire output is utilized in the country mainly in the ceramic industry.

Copper—The principal copper deposits of India, in order of importance, are in the Singhbhum district of Bihar, at Khetri and Singhana in Jaipur, at Daribo and Kho in Alwar (Rajasthan), at Bhotang and Dikchu in Sikkim and in the Guntur, Kurnool and Nellore districts of Andhra. The only deposits now being worked are those of Singhbhum. Here the mine is worked by Indian Copper Corporation. The Company at present mines at *Mosaboni and Badia* and works at Moubhandar and is the only copper smelter in India. About 870,000 tons of copper ores are being mined annually in Singhbhum, Bihar, but the production meets only 1/8th of India's needs.

Limestone—used principally for the manufacture of cement and for constructional purposes and also as a flax in melting of iron and lead ores—is found in Rhotasgarh in Sahabad district of Bihar, at Katni in M.P., in Bundi, Jodhpur, Sirohi in Rajasthan, in Rewah and Mahiar State of Madhya Bharat.

Tungsten—Tungsten ores are found in Jodhpur and Bikaner, but the reserves of this ore are small, caculated to be able to supply local needs of ferro-tungsten alloy industry.

Bentonite—is a valuable clay similar in its properties to Fuller's Earth. It occurs in limited quantities in Rajasthan, Bihar and Kashmir.

Gypsum—The main gypsum deposits in the country are located in Rajasthan, mostly in Jodhpur and Bikaner divisions and the total deposits upto the depth of 30 ft. or so are reported to be about 120 million tons. Of these total reserves, about 40 million tons are found in the Jodhpur division and about 80 million tons in the Bikaner division. The best known and probably the most valuable deposits are at Jamsar, about 20 miles north of Bikaner city. Other important deposits are located in Saurashtra in the area of Ran, Bhatia and Virpur and Kutch. Next come the gypsum deposits in Trichinopoly district in Madras State. The major quantities of gypsum are being used in the fertilizer and cement industries. Gypsum is also used, to some extent, for the manufacture of plaster boards, salphuric acid, heat-resisting boards, soil reclamation, etc. There are other industrial uses to which gypsum can be put. Among these are the paint and paper industries. It can also be used as a polishing material for tinplate and plate glass, and as an inert base in agricultural insecticides.

Sulphur—There are no known deposits of elemental sulphur in India. Reports of occurrences in Assam and Ladakh (Kashmir) require geological investigation. Assam coal is said to have a high sulphur content. It was reported recently that the Fuel Research Institute at Digwadih has found Rewa coal also rich in sulphur.

Steatite—is also known as soap-stone, pot-stone, talc and in its powdered from as 'french chalk.' It is one of the most variously used industrial minerals. It is available in Rajasthan and Madras.

Vanadium—There are large reserves of vanadium bearing titaniferous iron ores in Singhbhum and Mayurbhanj.

Sillimanite—is a mineral of rare occurrence, which is used in the manufacture of furnace lining in the iron and steel and glass and ceramic industry. It is almost a monopoly of India. Deposits of sillimanite are known to occur in Assam, Madhya Pradesh and Rewa. The world's largest concentration of sillimanite occurs in the Khasi hills. Its minimum reserves have been estimated at 250,000 tons.

Clays—India has abundant sources of clays which are distributed in almost every state of the country. Besides the deposits of China clay, those of fire clay and other clays are also widespread. Deposits of China clay occur and are worked in Bihar, Assam, Bombay, Hyderabad, Madras, Mysore and Travancore. The Travancore deposits are most important. The cotton textile industry is the principal user of China clay in India. The entire production of clays in India is used for internal consumption in the manufacture of pottery, building bricks, cement, soap and for colour washing.

Pyrites—The deposits of pyrites from which sulphur could be obtained exist at Amjor (Bihar), Wynaad (Madras), Ingladhal (Mysore) and Tara Devi (Simla Hills). But no detailed estimates are available of the quantities of pyrites in the deposits.

Corundum—In addition to the working mines in Hassan and Mysore districts (Mysore) and Rewa (Vindhya Pradesh), Corundum deposits are also known to occur in Khasi Hills (Assam) and South Kanara and Salem districts of Madras. The mineral is chiefly used as an abrasive.

Fuller's Earth—is chiefly obtained from Bikaner and Jodhpur in Rajasthan and a little is also obtained in M. P. Entire production is used for internal consumption.

Graphite—occurs in small quantities in various parts of India, namely, Ajmer, Hyderabad, Madhya Pradesh, Madras, Mysore, Orissa and Travancore. During recent years deposits have been worked in Madhya Pradesh, Mysore and Orissa only. The quantity produced falls short of the total requirements by about 25 p.c. which is met by imports. The mineral is mainly used in foundry, pencil and paint industry in India.

Antimony—There are small deposits of antimony in Lahalul (Kangra district, East Punjab) and at Shagor in Chitral State. The production is confined to one plant—Star Metal Refinery, Bombay.

Calcite—Calcite deposits are found in Saurashtra. They are also found in Nawanagar, Porbandar, Junagarh and Amereli. The most important of the deposits are found in Amereli. It is used for the manufacture of calcium carbide, bleaching powder, as aflux in metallurgical operations, for making glaze in pottery or for making industrial lime.

Lead—Lead deposits now being exploited in India, are located at Zawar in Udaipur and at the Banjavi mines in Jaipur. These are now under lease to the Metal Corporation of India.

Titanium—The most important deposits of titanium minerals worked in India lie in Travancore on the south-west coast in five stretches along the coast—Nindakara (north of Quilon), Anjengo-Varkala (south of Quilon), Kovilam (south of Trivandrum), Muttampudur (near Colachel) and Cape Comorin-Liparum (on the eastern coast of Tinnevelly district). Recently titanium has attained perhaps the highest importance as strategic material, because the metal and its alloys have been found to have better qualities than the strongest steels and yet are lighter in weight than those steels.

Apatite—Only a small output of apatite is obtained from Singhbhum in Bihar and Trichinopoly in Madras. The entire production of the country is used for manures, which is estimated to meet only 5 per cent of the country's requirements of phosphatic manures, the balance being imported.

Asbestos—India has a limited resources of asbestos, mainly in Andhra, Bihar, Mysore and Rajasthan. Of the two chief varieties found in India, the chrysolite asbestos which is the flexible variety amenable to spinning and hence more valuable, is found in Cuddapah (Andhra), while other deposits yield the tremolite type which is less flexible. India is deficient in this mineral.

Barytes—The mineral is used mainly in the paint and petroleum industry in India. Deposits of barytes occur in Madras, Uttar Pradesh, Rajasthan and Anantapur and Cuddapah districts of Andhra Pradesh.

Precious Stones—Actual diamond mines are in Panna in Vindhya Pradesh over an area of 750 sq. miles. Geologically, the rock formation resembles that of Kimberly, South Africa, and Russian experts who visited the mining area recently reported that a daily output of 1,895 carats could be expected when the mines are fully mechanised. *Sapphires* of a very clear blue colour are obtained in Kashmir at an altitude of 14,000 ft. *Garnets* of a rich deep purplish red are found in Barwar District in Kishengarh State and the adjoining tracks of Jaipur State. *Emeralds* are chiefly obtained from Udaipur (Rajasthan) and from Ajmer.

MINERAL PRODUCTION OF INDIA

		Gold (ounces)	*Manganese* (000 tons)	*Copper ore* (tons)	*Ilmenite* (tons)	*Building materials* (value Rs. 000)	*Mica* (000 Cwts.)
1950	..	196.925	883	360.308	212,663	4.14,79	162
1951	..	226,264	1,292	369,057	224,084	5,88,10	200
1952	..	253,264	1,462	324,635	224,895	3,54,79	152
1953	..	223,376	1,902	238,010	215,259	3,97,00	128
1954	..	239,168	1,414	342,750	240,513	4,08,00	103
1955	..	210,880	1,584	353,054	250,774	3,62,87	465
1956	..	209,251	1,687	386,196	335,590	3,70,07	561
1957	..	—	1,568	404,000	296,000	4,07,88	607

(*Monthly Abstract of Statistics, August, 1958*).

(From Previous Page)

		Bauxite (tons)	*Chromite* (tons)	*Kyanite* (tons)	*Gypsum* (tons)
1950	..	64,399	16,729	35,448	206,366
1951	..	67,047	16,702	42,501	203,612
1952	..	63,505	35,187	26,882	411,204
1953	..	70,848	64,770	15,374	585,839
1954	..	74,747	45,507	42,330	612,120
1955	..	81,172	89,349	11,741	689,905
1956	..	91,225	52,686	20,135	849,583
1957	..	96,071	78,542	18,120	914,000

(Monthly Abstract of Statistics, August, 1958).

INDEX NUMBER OF MINERAL PRODUCTION IN INDIA

(Base 1951=100)

		General Index	*Coal*	*Iron*	*Chromite*	*Copper*
1952	..	103.9	105.4	107.4	210.7	88.1
1953	..	106.6	104.1	105.4	387.8	64.5
1954	..	107.6	106.7	117.8	272.5	93.0
1955	..	112.6	110.4	127.2	535.0	95.7
1956	..	116.5	113.3	132.1	315.5	104.6

		Gold	*Ilmenite*	*Bauxite*	*Manganese*
1952	..	88.0	100.5	94.7	113.2
1953	..	64.5	96.1	105.7	147.3
1954	..	93.0	107.2	111.5	109.4
1955	..	95.7	112.1	121.1	122.5
1956	..	101.6	150.0	136.1	130.6

(Monthly Abstract of Statistics, August, 1958).

UNITED NATIONS

ORIGIN—The necessity for forming a United Nations Organization was first discussed at Dumbarton Oaks, Washington D. C., August 21—Oct. 7, 1944. It was finally put to concrete shape by the delegates of 50 Allied Nations assembled at San Francisco from April 25 to June 26, 1945 where representatives of 50 nations signed the United Nations Charter. The U. N. officially came into existence on October 24, 1945.

PURPOSES OF U. N.—Four purposes of the U. N. are—(1) to maintain international peace and security, (2) to develop friendly relations among nations, (3) to co-operate internationally in solving international economic, social, cultural and humanitarian problems and in promoting respect for human rights and fundamental freedoms and (4) to be a centre for harmonizing the actions of nations in attaining these common ends.

FINANCE—The United Nations is financed by the contributions from member States. Member States contribute to the expenses of the budget and Working Capital Fund on a scale determined by the General Assembly each year on the recommendation of its Committee on Contributions.

OFFICIAL LANGUAGES—The official languages of the U. N. are Chinese, English, French, Russian and Spanish. Its working languages are English and French. Spanish is also the working language of the General Assembly.

MEMBERSHIP—Membership of the United Nations is open to all peace-loving nations which accept the obligations of the U.N. Charter and, in the judgement of the Organisation, are able and willing to carry out these obligations. The original members of the United Nations are those countries which signed the Declaration of the United Nations on Jan. 1, 1942 or took part in the San Francisco Conference and signed and ratified the Charter. Other countries can be admitted by the General Assembly upon the recommendation by the Security Council.

Members Of The United Nations

Afganistan.
Albania.
Argentina.
Australia.
Austria.
Belgium.
Bolivia.
Brazil.
Bulgaria.
Burma.
Byelorussian SSR.
Cambodia.
Canada.
Ceylon.
Chile.
China.
Cuba.
Czechoslovakia.
Colombia.
Costa Rica.
Dominician Republic.
Denmark.
Equador.
Egypt.
El Salvador.
Ethiopia.
Finland.
France.
Ghana.
Greece.

Guatemala.
Haiti.
Honduras.
Hungary.
Iceland.
India.
Indonesia.
Iran.
Iraq.
Ireland.
Israel.
Italy.
Jordan.
Laos.
Lebanon.
Libaria.
Libya.
Luxemburg.
Malaya.
Mexico.
Morocco.
Nepal.
Netherlands.
New Zealand.
Nicaragua.
Norway.
Pakistan.
Panama.
Paraguay.
Portugal.
Philippines.
Poland.
Peru.
Romania.
Saudi Arabia.
Spain.
Sudan.
Sweden.
Syria.
Thailand.
Tunisia.
Turkey.
Ukrainian SSR.
Union of South Africa.
USSR.
United Kingdom.
United States.
Uruguay.
Venezuela.
Yemen.
Yugoslavia.
Guiana.

UNITED NATIONS' FLAG—The flag is light blue in colour and emblazoned in white in its centre is the United Nations' symbol, a polar map of the world embraced by twin olive branches.

HEADQUARTERS AND OFFICES—New York, U.S.A. The European office of the U.N. is in Geneva. From 1954 U.N. Information Centres have been established at Athens, Bogota, Buenos Aires, Belgrade, Cairo, Copenhagen, Geneva, Karachi, London, Mexico city, Monrovia, Moscow, New Delhi, Paris, Prague, Rio de Janeiro, Shanghai, Sydney, Teheran and Washington.

ORGANS OF THE UNITED NATIONS

Principal organs of the United Nations are—(1) *General Assembly*; (2) *Security Council*; (3) *Economic and Social Council*; (4) *Trusteeship Council*; (5) *International Court of Justice*; (6) *Secretariat*.

1. GENERAL ASSEMBLY—consists of all members of the United Nations, each with one vote but none with veto power. The General Assembly meets once a year in September. It may also hold special sessions. Voting on important questions is by a two-thirds majority. On other questions it is by a simple majority. The work of the General Assembly is divided between Six Main Committees.

First Committee—Political and Security (including the regulation of armaments).

Special Political Committee.

Second Committee—Economic and Financial.

Third Committee—Social, Humanitarian and Cultural.

Fourth Committee—Trusteeship including non-self-governing territories.

Fifth Committee—Administrative and Budgetary.

Sixth Committee—Legal.

***Standing Committees*—**

The General Assembly is assisted by two Standing Committees, Advisory Committee on Administrative and Budgetary Questions and Committee on Contributions

The Assembly has also established four standing bodies to assist in its work—

Four Standing Bodies—

Board of Auditors
Investments Committee
U. N Staff Pension Committee
International Law Commission

2. SECURITY COUNCIL—has eleven members, five of which (United States, Britain, France, Russia and Nationalist China) are permanent. Six non permanent members are elected by the General Assembly. The Security Council is so organised as to be able to function continuously with each of its members represented at all times at the seat of the Organisation A negative vote by any permanent member is a veto

The Security Council has "primary responsibility for the maintenance of international peace and security"

SUBSIDIARY ORGANS OF THE SECURITY COUNCIL—

(i) *MILITARY STAFF COMMITTEE*—consists of the Chiefs of Staff of five permanent members or their representatives, which assists the Security Council on such questions as the Council's military requirements for the maintenance of peace, the strategic direction of armed forces placed at its disposal, the regulation of armaments and possible disarmaments

(ii) *DISARMAMENT COMMISSION*—was established by the General Assembly under the Security Council, has the same membership as the Council plus Canada when not a member of the Council.

3 ECONOMIC AND SOCIAL COUNCIL—is composed of 18 non-permanent members serving 3 year term This Council is responsible for the economic & social activities of the United Nations

The Council works through Commissions and Committee —(1) *Transport and Communications Commission*, (2) *Statistical Commission*; (3) *Population Commission* (4) *Social Commission* (5) *Commission on Human Rights*, (6) *Commission on the status of women*, (7) *Commission on Narcotic Drugs*, (8) *Commission on International Commodity Trade*

Three *Regional Economic Commissions* have also been established —Economic Commission for Europe, Economic Commission for Asia and the Far East and Economic Commission for Latin America

4 TRUSTEESHIP COUNCIL—Trusteeship Council is composed of 14 members- seven members, Australia, Belgium France, Italy, New Zealand, United Kingdom and United States which administer trust territories, China and U S S R, other permanent members of the Security Council, which do not administer trust territories, and five other members elected by the General Assembly serving 3-year term.

Trusteeship territories—(1) New Guinea (*Australia*), (2) Ruanda-Urundi (*Belgium*), (3) Cameroons and Togoland (*France*), (4) Western Samoa (*New Zealand*), (5) Cameroons, & Tanganyika (*United Kingdom*), Nauru (*Australia*), (6) Somaliland

(*Italy*), (7) the Territory of the Pacific Islands composed of the former Japanese-mandated islands of Marshalls, Marianas (with the exception of Guam) and Carolines is a strategic Trust Territory administered by the United States of America.

5. INTERNATIONAL COURT OF JUSTICE—It is the principal judicial body of the United Nations. It is a Court of Law and deals with legal questions only, not with political disputes. All countries which are parties to the Statute of the Court can refer to it any case they wish. In addition, Security Council may refer a legal dispute to the Court and all organs of the U.N. can ask the Court for an advisory opinion on any legal question.

The Court consists of fifteen Judges elected by the General Assembly and the Security Council, voting independently. The Judges are chosen on the basis of their qualifications, not on the basis of their nationality. Care is taken, however, to see that the principal legal systems of the world are represented in the Court. No two judges can be nationals of the same State.

The seat of the International Court of Justice is at the Hague, the Netherlands.

6. SECRETARIAT—is composed of the Secretary-General who is the chief administrative officer of the Organisation and an international staff appointed by him under regulation established by the General Assembly. The Secretary-General is appointed for a term of five years.

SPECIALISED AGENCIES

INTERNATIONAL LABOUR ORGANISATION—I.L.O. was established in 1919 as an autonomous institution associated with the League of Nations. It is a tripartite organisation, in which Government, employees and workers are directly represented. It seeks through international action to improve labour conditions, raise living standards, and promote economic and social stability. In 1946 U. N. and I. L. O. concluded an agreement under which I. L. O. was recognised as a specialised body of U. N.

I.L.O.'s machinery consists of (1) *A General Conference* which is I.L.O.'s highest authority. It is the policy-making authority of the organisation. It meets annually and is composed of national delegations comprising two Government delegates and one delegate each representing management and labour. The chief function of the Conference is to formulate intrnational social standards in the form of conventions. (2) *Governing body* is composed of 40 members; 20 representing Governments, ten representing management and ten representing labour. Governing Body supervises the work of the International Labour Office and the Organisations, various Committees and Commissions. (3) *International Labour Office* is the secretariat of the I.L.O. *Head Office*: Geneva, Switzerland.

FOOD AND AGRICULTURE ORGANISATION OF THE UNITED NATIONS (FAO.)—The chief aims of F.A.O. are (1) to help nations raise the standard of living, (2) to improve nutrition of the peoples of all countries, (3) to increase the efficiency of farming, forestry and fisheries, (4) to better the condition of rural people and, through all these means, to widen the opportunity of all people for productive work. F.A.O. was founded on October 16, 1945. *Headquarters*: Viale delle Terme Di Caracalla, Rome, Italy.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION (UNESCO)—"The purpose of the organisation "is to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for rule of law and for the human rights and fundamental freedoms, which are affirmed for the peoples of the world without distinction of race, sex, language or religion by the Charter of the United Nations." It was established on 4th Nov., 1946 *Office*. Unesco House, 19, Avenue Kleber, Paris 16, France.

INTERNATIONAL CIVIL AVIATION ORGANISATION (ICAO)—is designed to solve the problem of international civil aviation and establishment of international standards and regulations for civil aviation. It encourages the use of safety measures, uniform regulations for operation, and simpler procedures at international borders. It promotes the use of new technical methods and equipment. It was established on 4th April, 1947. *Headquarters*: International Aviation Building, Montreal, Canada.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (BANK)—was established on Dec 27, 1945 when 28 nations signed Articles of Agreement drawn up at Bretton Woods Conference in July 1944. The purpose of the Bank is to assist in reconstruction and development of territories of members by facilitating the investment of capital for productive purposes; to promote private foreign investment, to promote the balanced growth of International trade. *Headquarters*. 1818 H. St. N W., Washington 25 DC.

INTERNATIONAL MONETARY FUND (FUND)—was established on Dec 27, 1945 when Articles of Agreement drawn up at Bretton Woods Conference in July 1944 came into force The purpose of the Fund is to promote international monetary co operation and expansion of international trade, to promote exchange stability, to assist in the establishment of multilateral system of payments in respect of current transaction between members. *Headquarters*: 1818 H. Street, Washington 25, D.C

INTERNATIONAL FINANCE CORPORATION (I F.C.)—The Corporation came into force on July 20, 1956. Though affiliated with the International Bank, it is a separate legal entity and its funds are entirely separate from those of the Bank. Its objective is to further economic development by encouraging the growth of productive private enterprise in its member countries, particularly in the less-developed areas. *Headquarters*: 1818H. Street NW, Washington D. C.

INTERNATIONAL ATOMIC ENERGY AGENCY (I.A.E.A.)—Statute for I.A.E.A. approved on October 26, 1956 at a conference held at U. N. Headquarters, New York came into force on July 29, 1957. Agency's working relationship with the United Nations has been determined at the first general conference of I.A.E.A. at Vienna in 1957. The purpose of the Agency is to promote the peaceful uses of atomic energy and to ensure the assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose.

WORLD HEALTH ORGANISATION (WHO)—The constitution of the WHO defines health as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." It sets down as the objective of this Organisation "the attainment of all peoples of the highest possible level of health." Its services are of two kinds—advisory and technical. It came into being on April 7, 1948 *Headquarters* : Palais de Nations, Geneva, Switzerland.

UNIVERSAL POSTAL UNION (UPU)—Its purpose is to alleviate the uncertainty, confusion and excessive cost of international postal communications by uniting its member-countries in a single postal territory for the reciprocal exchange of mail. Its aim is to insure the organisation and improvement of postal services throughout the world through international collaboration.

Thus every member agrees to transmit the mail of all other members by the best means used for its own mail.

It was established in 1874 by Universal Postal Convention of Berne. Switzerland. *Headquarters*,: Berne, Switzerland.

INTERNATIONAL TELECOMMUNICATION UNION (ITU)—Its purposes are to set up international regulations for telegraph, telephone and radio services to further their development and extend their utilization by the public at the lowest possible rates.

It was established on Jan., 1934 by the International Telecommunication Convention adopted by the Madrid Conference on Dec. 9, 1932 which amalgamated the International Telegraph Union (founded 1865) and the group of countries signatory or adherent to the various radio telegraph conventions beginning with that of Berlin (1906). *Headquarters* . Palais Wilson, Geneva, Switzerland.

WORLD METEOROLOGICAL ORGANISATION (WMO)—This organisation as stated in the preamble to its convention, is established with a view to co-ordinating, standardising and improving world meteorological activities and to encouraging an efficient exchange of meteorological information between countries in the aid of human activities

The WMO came into existence on March 23 1950.

Headquarters : 14 Avenue de la Paix, Geneva, Switzerland.

INTER-GOVERNMENTAL MARITIME CONSULTIVE ORGANISATION (IMCO)—This organisation will come into existence when 21 nations, of which seven must each have a total tonnage of at least one million gross tons of shipping, have become parties to convention drawn up by N. Maritime Conference are Geneva, 1948. The purposes of the Organization are to promote colllaboration among

Governments in technical problems of international shipping and to encourage removal of discriminatory treatment by governments and unfair restrictive actions by shipping concerns.

INTERNATIONAL TRADE ORGANISATION (ITO) : *General Agreement on Tariffs and Trade (GATT)*—Although establishment of ITO and the bringing into operation of the Havana Charter, on which it was to be based, have not taken place, one of the main objectives of that Charter has been embodied in an international commercial treaty, known as General Agreement on Tariff and Trade (GATT) : Provision has been made for a permanent Organisation for Trade Co-operation (OTC) to administer GATT and to come into being when it has been accepted by countries which account for high proportion of world trade.

U. N. Information Centre in India—U. N. Information Centre, Theatre Communications Building, Connaught Place, Queen's Way, New Delhi 1. *Area Covered*—Burma, Ceylon, India.

INDIAN PORTS

INDIAN PORTS—With a coast line of 3,500 miles, India possesses only six important ports, or one to every 60 millions of its inhabitants. The major ports of India are Bombay, Cochin, Visakhapatnam, Madras, Calcutta and Kandla. Bombay, Cochin and Visakhapatnam provide natural harbours Madras has an artificial one, bare protected from weather particularly during October and November when cyclones prevail. Calcutta lies at the head of a 120-mile-long turbulent river which has a wide range of tides to which deep-drafted ships have to suit themselves. A sixth, Kandla in Cutch, has been recently developed. Kandla will serve the vast hinterland of the Punjab, the north, western and central India more economically than Bombay. Technically major port is one which is capable of taking oceangoing steamers with a registered tonnage of 4,000 or more and berth them along harbour and they must carry on a minimum requisite trade of 5,000,000 tons per annum. The ports of Bombay, Calcutta and Madras are administered by statutory port authorities, subject to the overall control of the Central Government. The ports of Cochin, Visakhapatnam and Kandla are administered by the Central Government itself. The Port Trusts and Ports Amendment Act of 1951 ensures uniformity in port administration, brings greater measures of central control and effects decentralisation of authority in the day-to-day administration of major ports of Calcutta, Bombay and Madras. Minor ports are under control of the maritime State Governments. The following important points are to be noted—(1) 80 per cent of all trade passes through the five of the major ports ; (2) 75 per cent of the traffic of the major ports falls to the share of Calcutta and Bombay. (3) At Calcutta and Visakhapatnam, the larger share of the traffic consists of exports, while at Madras, Cochin and Bombay imports predominate. The total capacity for handling cargo of these major ports is 260 lakh tons per annum.

MAJOR AND MINOR PORTS—Apart from six major Ports, the number of ports notified as open for traffic on the whole coast under Indian Ports Act, 1908 are 226 and the number of working Ports, *i.e.*, ports through which some traffic, however small, has passed through, are only 150, which are as follows—Orissa 9 declared open, 3 used; Madras 54 and 30; Travancore-Cochin 9 and 6; Bombay 87 and 80; Saurashtra 60 and 29; Kutch 7 and 7. At present all ports which are directly under the Central Government are called major ports and all other ports which are under the direct administrative control of State Governments are classified as minor ports. The Port (Technical) Committee distinguished a major port as one capable of taking in ocean-going steamers with a gross registered tonnage of 4,000 or more. There is futher sub-classification of ports as "minor." The ports which handle or have handled in the port 100,000 tons or more of cargo per year or are otherwise important, are classed as intermediate ports. Other ports with an annual cargo tonnage below 100,000 tons and not less than 1,500 tons or which have an importance for any reason (such as passenger amenities, customs or naval requirements, etc.,) may be classified as minor ports. These ports are the responsibility of the State Governments. All the remaining ports may be classed as sub-ports or petty ports. This classification gives the following distribution :—ports declared open 227; intermediate ports 18; minor ports 67; sub-ports 142.

Administrative Set-up— The administration of major ports is under the Ministry of Transport and Communications : Under the Indian Constitution, the administration of "major ports" is the responsibility of the Central Government. The major ports, so far declared, are Calcutta, Bombay, Madras, Cochin, Kanada and Visakhapatnam. The major ports of Calcutta, Bombay and Madras are administered by the Ports Trusts constituted under the respective Ports Trusts Acts. The ports of Cochin, Visakhapatnam and Kanada are at present administered directly by the Department of Transport through an Administrative Officer in the case of Cochin and Visakhapatnam and a Development Commissioner in the case of Kanada. The Port Trusts and Ports Amendment Act passed in 1951 brings about uniformity in port administration and ensures greater Central control and supervision in the matters of policy. The National Harbour Board was constituted in 1950 consisting of the representatives of the Government of India and major port authorities to advise government on the general policy relating to the development of ports, specially the minor ones.

National Harbour Board—The Government of India announced the formation of a National Harbour Board in 1950, to consider and advise the Government on important problems relating to the administration and development of ports and harbours in the country. The Board is, for the present, composed of representatives of the ministries concerned of the Government of India, State Governments and of the major port authorities and has as its chairman the Minister for Transport and Railways. There are 18 members on the Board. The National Harbour Board constitutes the principal forum for discussing common problem relating to ports in their specialised aspects, such as the need for technical personnel and equipment, the pooling of technical knowledge, the method of control and administration, laws relating to ports and their financial position, etc. The Board also pays due regard to the effects of changes in port policy generally in industry, trade and railways.

Lighthouses—Prior to independence, the management of a substantial portion of the Lighthouses was vested in the then provincial governments and Port Trusts; the New Constitution made the Lighthouses an exclusively central subject. The Lighthouses Department is now functioning as an independent unit under the administrative control of the Transport Ministry. There are 1,714 Lighthouses in India consisting of shore lights, light-vessels, bury-lights, beacons, etc.

The total estimated cost of the first and second Five-Year Plans of the Lighthouses Department amounts to about Rs. 18 crores.

Five-Year Plans—In the Five Year Plans, provision was made for Rs. 750 lakhs to modernise and provide additional facilities to major ports and to improve selected minor ports. The plan further provided for the construction of a new major port at Kandla. But the first Five-Year Plan has only been partially carried out. The broad aim in the Second Plan is to complete the schemes started in the First Plan and to further modernise the docks so as to provide for new needs arising from the economic and industrial development of the country.

DESCRIPTION OF PORTS

1. **Kandla**—With the loss of Karachi after partition, there is no big port along 1,000 mile-long coast line between Bombay and Karachi to serve vast hinterland. So in 1948 the Government of India accepted the recommendation of the West Coast Major Port Development Committee that Kandla in the Gulf of Kutch where Kandla creek forms a good natural deepwater harbour, should be developed as a major port to serve central and north west India and to relieve the pressure on Bombay. The geographical position of Kandla is best suited to replace Karachi in its service to hinterland. Delhi is 656 miles from Kandla as against 783 miles from Karachi. The Kandla port project is under the immediate control of a high-power organisation under a development commissioner. There will be four cargo berths for ships upto 600 feet in length, passenger berths for coastal traffic between Bombay and Karachi and for ferry services across the gulf, a basin for country craft and lighters, an oil berth for tankers upto 32,600 tons (d. w.) and a small concrete floating dock.

To open the hinterland, a metre-gauge railway line was completed in 1952 upto Deesa in the north of Bombay State on the Western Railway, about 174 miles distant. The foundation stone of the harbour works was laid by the Prime Minister of India on Jan. 10, 1952. The hinterland for the new port will be Gujarat, Rajasthan, Ajmer, Delhi, Punjab, West Uttar Pradesh. Township of Gandhidham intended for resettlement of displaced persons from West Pakistan is being built alongside the new port.

Bombay.—Situated almost mudway on the West coast of India, Bombay is the only natural deep-water harbour on this side of the country. Possessing almost all the natural facilities for shipping, it is one of the safest and most spacious of the great seaports of the world, providing secure and ample shelter for ships throughout the year. Almost one-half of the foreign trade of India passes through Bombay Port. The affairs of the port are under the supervision and control of the Bombay Port Trust, consisting of a Chairman appointed by Government and twenty-one members elected and nominated. The harbour, which is one of the safest and the most spacious in the world, covers 70 square miles and provides secure and ample shelter for shipping at all seasons of the year, being 14 miles long, 4 to 6 miles wide with a general depth varying from 22 to 40 feet. There are three main docks and a number of open wharves for country crafts. Besides the enclosed docks, there are situated along the harbour a number of 'Bunders' or open wharves and basins where the traffic carried by coasting and country crafts and "overside" cargo from the docks and stream is handled. Seeds, hides and skin, cotton, oil cakes, piecegoods, food grains, turmeric, ores, tobacco are chief exports.

The harbour is about 12 miles long, 4 to 6 miles wide with a minimum of 30 feet at low water in the entrance fairway. Trans-oceanic passenger traffic is mostly dealt with at the Ballard Pier. Coastal and harbour passenger traffic is dealt at New Ferry Wharf.

The Bombay Port Trust is administered by a Chairman appointed by the Government and a Board of Trustees, 10 of whom are nominated by the Government. The entire administration is subject to the provisions of the Bombay Port Trust Act, 1879.

Madras—The third largest port of India situated on the east-coast of India, has a vast hinterland lying in the States of Madras, Andhra, and Kerala. It is controlled by a statutory body, the Madras Port Trust. It was an open roadstead with surf-beaten coast line, but the present harbour has been formed by two concrete walls projecting into the sea so as to enclose a space of about 200 acres with an entrance which gives a depth of 37 feet at high-water and 34 feet at low-water. The port can take vessels with 30' draft at all times. It is an artificial port developed by man's ingenuity. It handles over two million tons annually. Being an artificial harbour, the problem of silting is ever present, and constant dredging is required. It has at present nine alongside berths, besides several mooring berths, and the Buckingham Canal links it with a rich tobacco-growing region. It is well-served with rail and road communications, has a modern airport, and the Buckingham Canal which links the city with the tobacco-growing areas, brings large tonnages for export down to the city.

The port's greatest enemy is the sand menace. During south-west monsoon period, fine sand carried along with the wind settles down. Hundreds and thousands of tons of sand thus settle down every year in and outside the Madras Harbour and all this sand has to be got rid off, if Madras is not one day to cease to be a port. There is constant dredging going on in the harbour. The Madras Port Trust is carrying on an unceasing and continuing fight against this enemy.

Chief imports are oil, coal, foodgrains, metals, timber, textiles, chemical manures, machinery, steel, hardware, etc.

Chief exports are hides and skins, edible oils, textiles, ores, tobacco, etc.

Calcutta—is the largest terminal port in south Asia. It commands the largest and the richest hinterland. It not only handles the import and export trade of West Bengal, Assam and Bihar, but most of the exports of U.P., Orissa and even Madhya Pradesh are sent through Calcutta port. The port handles annually about 10 million tons of cargo, which is more than half the sea-house trade of the Union of India. The Chief exports are coal, tea, gunnies, bone and bone-meal, skins, hamp, iron and steel manufactures, lac, oil other than petroleum, scrap ones, pig iron, hides, mica. The principal imports are salt, food-grains and flour, machinery, petroleum, iron and steel, metals other than iron and steel, lubricating oil, cement, rubber, chemical products, soda ash, sugar, timber, tobacco, paint, varnish, etc. It is situated on the Hooghly river 90 miles from the Bay of Bengal and is the clearing centre for the whole of the trade, both inward and outward of North-eastern India, where it forms the terminal of railway, road and inland waterways system and for ocean-going and coastwise-shipping. Being a terminal of east India's railway, road and inland waterways system, it has a hinterland in Bengal, Assam, Bihar and U.P. possessing the important jute, tea, steel and coal industries. Ships of 15,000 tons can enter the port where there is a jetty and mooring accommodation. A maximum draught of 30 feet is available at certain times of the year. There are moorings in the stream available for 60 ocean-going vessels ; 30 vessels can be accommodated at Kidderpore Docks ; and 14 at King George's Dock. Calcutta suffers from the inevitable disadvantages due to its location several miles inland, or the bank of the estuarine Hooghly, which is subjected to strong tides and bores from the sea to a distance of 160 miles upstream. Calcutta's shipping is at the mercy of the tides. The ships can enter and clear only at a fixed hour corresponding with the tides. The pilotage on the Hooghly, one of the most difficult waterways in the world, was under the direct administrative control of the Government of India till May 16, 1948 when it was handed over to the Calcutta Port Commissioners for administrative reasons. There is an excellent pilot service and wireless stations keep in touch with all the vessels in the river and the Bay.

Cochin—This port's commercial and naval importance has been greatly developed within recent years. 580 miles south of Bombay and 200 miles north of Cape Comorin and in the centre of Kerala, a region recently endowed by nature and known as the Garden of

India, lies this port, the finest natural harbour in the East. Behind an opening from the sea which is about 400 yards wide, there is an area of 120 sq. miles of sheltered backwater, a calm harbourage all the year round within a vast expanse of lagoons. Even in the worst monsoon weather, vessels can lie comfortably in the harbour and carry on landing and shipping operations. The system of backwaters running parallel with the coast affords cheap transport and excellent waterways connecting several places of importance in the Cochin and Travancore States. The port of Cochin serves most of the Malabar and Travancore-Cochin area and is an important nerve centre of commerce and trade. It lies on the direct route to Australia and the Far East from Europe. Its hinterland is rich in natural produce, such as pepper, cardamoms, tea, coffee, rubber, timber, etc. Other products of the area are Mangalore tiles, coir and coir products and lemon grass oil. The port, which includes the Willingdon Island, is situated in an area famous for its system of backwaters and inland waterways. The entrance channel to the harbour gives access to about 120 square miles of navigable backwaters.

Cochin port is directly administered by the Ministry of Transport of the Government of India through the Administrative Officer, assisted by an Advisory Committee.

The range of exports now covers coir yarn, fibre and mats and mattings, all state produce, cashew-kernels, cashew-shell liquid, spices, lemongrass oil, maroth oil, raw earth concentrates, cotton, handloom piecegoods, cotton sewing thread, crude drugs, soap, hydrogenated oil and glycerine. Imports cover a wide field including coal, chemicals, grains, hardware, paper, petroleum and petroleum products, copra and metals.

Visakhapatnam—is a great ore-exporting port and is the only landlocked and protected port in India and is situated about midway between Calcutta and Madras. The port is controlled by the Government of India (Ministry of Railways), Railway Board through the General Manager, South Eastern Railway, who is the Conservator of the Port. Owing to a hill-range bordering the sea, harbour remains concealed from the vessels plying on the ocean outside. This fact added much to its strategic importance. In October 1933, the port was opened to ocean going ships. The principal articles of export from the port are manganese ore, bunker coal, tobacco, myrobalan, and oilseeds. Exports are much larger than imports since the port does not serve any large consuming area, while two-thirds of the exports is made up of manganese ore, most of which comes from Madhya Pradesh.

It is now the centre of ship-building industry in India where Scindia Steamship Company first established ship-building yards, which is now being owned by the Government and the Company. Foreign imports are directly received from foreign ports. It is a natural harbour. The ship-yard can build ocean-going vessels with a maximum length of 550 ft. and a maximum carrying capacity of 12,000 tons cargo.

Tuticorin—This port is open all the year round and has next to Madras and Cochin the largest trade in southern India. The harbour is so shallow that steamers anchor about 5 miles from the shore and continuous dredging is necessary to keep the channel open between the sea and roadstead. A Port Trust was formed in 1924. There is a considerable trade with Ceylon in rice, pulses, onions, chillies and livestock.

Saurashtra Ports—For purposes of administration, all the ports in Saurashtra have been divided into five groups, each under a port officer with headquarters at the most important port in the group. The five groups are—

Bhavnagar with its sub-ports of *Talaja, Mahuva, Port Albert Victor, Bherai,* and *Jafrabad.*

Bedi with its sub-ports of *Sikka, Salaya, Jodia and Pindhara, Navalakhi.*

Veraval with its sub-ports of *Mangrol, Navabandar, Simar,* Shil and *Rajpara.*

The five main ports of Bhavnagar, Bedi, Navalakhi, Veraval and Porbandar and several smaller ports of Saurashtra are served by a metre-gauge railway line. In all, Saurashtra has, at present, five intermediate ports and nine minor ports of the total 18 intermediate and 67 minor ports in the Indian Union.

Okha—is an western Indian port situated in a detached portion of Baroda. It lies in a strategic position at the extreme north-east point of the Kathiawar peninsula, readily accessible to all steamers tiding along that coast. The port is available even to large ships at all states of tides and at all seasons of the year. This port from the marine point of view, is easily the finest of the smaller ports of India. Deep water is available for a larger number of ships to be at anchor, unaffected by the strongest spring tides or S. W. monsoon.

Surat—situated 14 miles from the sea with which it is connected by a river, is navigable only by small country crafts. Surat was one of the earliest and most important of the East India Company's factories. But the trade of Surat has considerably declined due to the rise of Bombay port.

Mangalore—is a tidal port served chiefly by backwater communication with hinterland. The backwater of Mangalore is 3½ miles long and 2,000 ft. wide. The hinterland of Mangalore consists of South Canara, Coorg, and the Malnad districts of Mysore State. Mangalore is the north-western terminus of Southern Railway. The chief exports to Europe are pepper, tea, cashew kernels, coffee, sandalwood from Mysore, rice, salt fish, dried fruits, fish manures. Mangalore is the favourite port on the coast for the Laccadive and Amindive Islanders who bring their coir and other coconut produce for sale.

Calicut—is some 42 miles from Tellicherry and 90 miles from Cochin. The port is practically closed during the south-west monsoon from the end of May until the latter half of August. The principal exports are coir, coir fibre, copra, coffee, tea, pepper, ginger, rubber, groundnut, raw cotton and fish manure.

Alleppey—is the premier port and commercial centre in Travancore and is situated about 35 miles south of Cochin. A canal connects the port with the interior backwaters. It possesses a roadstead affording safe anchorage during the greater part of the year. The chief exports are copra, coconuts, coir fibre and matting, cardamoms, ginger and pepper.

Quilon—is the Coilum of Marco Polo. It is connected with Alleppy by backwater. The chief industries are cotton spinning and tile manufacture. Vessels anchor about ¾ mile from the shore and a railway siding runs up to the landing place.

Dhanushkadi—is the terminus of Southern Railway on the S-E. extremity of the Island of Rameswaram at the junction of Palk Strait with the Gulf of Mannar and connected with Talaimannar in Ceylon, 21 miles distant by a daily turbine steamer service.

Negapatam—is the chief port in the Tanjore District, about 13 miles south of Karikal. Numerous sailings trade between this port and Ceylon.

Cocanada—is situated on the Cocanada Bay just north of the Godavari river, some eighty miles south of Visakhapatnam and 270 miles north of Madras. In spite of several disabilities, it ranks fourth in importance among the ports of Madras State. Principal shipments are raw cotton, groundnuts, castor seeds, rice. Imports consist of kerosine, metals, etc.

Karikal—was a French settlement covering an area of 53 square miles and a sea-board of 12 miles and is almost surrounded by Tanjore district. The chief traffic is rice, betelnuts, matches, fireworks and kerosene oil.

Pondicherry—is now an important port of India and is situated on the Coromandel Coast, 104 miles south of Madras. The roadstead possesses a good anchorage. Pondicherry is the centre of the export trade in groundnuts.

Bhatkal—is ideally situated to meet the needs of Mysore. A number of important industries are located in this area which is known as Nalnad area.

Malpe—is situated midway between the ports of Goa and Cochin, and is the largest fishing centre of the west coast of India. There is a large tract of waste land nearby suitable for establishing naval and shipbuilding yards. A long chain of islands known as Mary's Isles, 1½ miles in length running parallel to the coast, can serve as a sea-wall. The port has a natural harbour, free of rocks, sand-drifts and dangerous currents and is protected by nature against storms.

Vessels of 100 tons belonging to or registered in India :

	Steamers & Motor Vessels	tons	*Sailing vessels*	*tons*
1954	.. 360	562,623	115	16,234
1955	.. 375	610,683	103	14,529
1956	.. 393	638,193	130	20,423

Exports and Imports from Three Main Ports
(000 tons)

	Calcutta		Bombay		Madras	
	Imports *Imports*	*Exports* *Exports*	*Imports* *Imports*	*Exports* *Exports*	*Imports* *Imports*	*Exports* *Exports*
1952-53	3,319	6,354	4,695	1,943	1,869	336
1953-54	2,723	5,336	4,775	1,951	1,641	495
1954-55	3,240	4,573	5,630	1,954	1,716	485
1955-56	3,409	4,622	6,707	3,599	1,833	628
1956-57	.. 4,353	4,516	8,239	3 740	2,033	632

Shipping at Five Principal Ports of India 1953-54

	Bombay		Calcutta		Madras	
	No	tons (000)	No	tons (000)	No	tons (000)
British steamers	1 235	6 112	1 184	4 617	632	2,746
Indian steamers	6 183	2 958	769	1,788	526	1,406
Foreign steamers	1 633	6 789	1,017	3 855	793	3,226
Sailing vessels	54 207	524	-	—	38	4
	63,258	16,383	2 970	10,260	1 995	7 382

	Tuticorin		*Cochin*	
British steamers	102	391	498	2,075
Indian steamers	409	577	1,004	1 518
Foreign steamers	222	372	671	2,803
Sailing vessels	1,062	510	695	57
	1,795	1 850	2 863	6,513

INDIAN PRESS

BEGINNINGS OF INDIAN PRESS—The Indian journalism had its first beginning when James Augustus Hickey started his *Bengal Gazette* on Jan. 29, 1780 at Serampore near Calcutta. The first journals published in this country were started in Bengal. At that time, newspapers were started mostly for the benefit of the British in India. Hickey's venture was followed by a number of others in quick succession. The most significant of these was the *John Bull in the East* in 1821, which was subsequently changed into the *Englishman.*

The development of the Indian Press, *i.e.*, National Press, was conditioned by the political stimulus that gave rise to it but it has been one long history of trials and tribulations. Indian Press had to struggle against several statutory disabilities. The conflict which began with the notorious *Vernacular Press Act*, 1878 continued unabated. Other more drastic measures followed, such as *Newspapers Incitement to Indian States Act of 1922, Official Secrets Act of 1923, Indian Press (Emergency Powers) Act of 1931, Foreign Regulations Act of 1932, Indian States (Protection) Act of 1934, etc., etc.*

During the second World War, when the relations between the British Government and the Press were considerably strained, a 'gentlemen's agreement' was concluded between the Government and the Press with the result, *Press Advisory Committee* came into being at the Centre and in many provinces. This gave the press a consultive status. Difficulties were smoothed over by mutual consultation.

This system is being still carried on and it has strengthened the foundation of a free press in India.

With the attainment of freedom, a new era of public responsibility dawned upon the Indian Press. The disappearance of the antagonism between the people and the rulers opened a new chapter in the relationship between the Government and the Press. The supreme duty of the press now is to educate and mould public opinion in favour of peace and harmony among the various communities in the country.

On a persistent demand from the Indian Press, the Government appointed a *Press Laws Enquiry Committee* in March, 1947 to enquire into the press laws and recommend necessary changes in them. The Committee submitted its report in May, 1948. Among its recommendations were the repeal of certain laws like Indian Press (Emergency Powers) Act of 1931 and the States (Protection) Act of 1934 and the modification of others. At the same time, the Committee recommended that State Governments should make the widest possible use of the press consultive machinery and avoid any action against newspapers except after consultation with the Local Press Advisory Committee.

FREEDOM OF THE PRESS—The Indian Constitution contains important Articles on the Fundamental Rights of citizens. Foremost among these fundamental rights is the right to "*freedom of speech and expression.*"

Unlike American and some other constitutions in which freedom of the press is mentioned in terms as one of the fundamental freedoms of the citizens guaranteed by the constitution, the Indian Constitution does not specifically mention freedom of the press; the fundamental rights clause of the Indian Constitution treats freedom of the press as an aspect of the larger "freedom of expression."

With the coming of Independence, the freedom of the Press has been embodied in the Constitution. Article 19(1) of the Constitution guarantees that all citizens shall have "the right to freedom of speech and expression.' But under the Constitution (First Amendment) Act of 1951, Parliament can pass legislation reasonably restricting this right "in the interest of the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement to offence" The words "reasonable restriction" make such legislation in this behalf justifiable.

PRESS LAWS—The acts in conformity with the recommendations of the Press Commission's Report are being passed by the Government The following are the main acts concerning the Press in India now in operation. *The Working Journalists (Conditions of Service and Miscellaneous Provisions) Act*, which was passed in 1955 and came into force in December 1955. The Act also provides for the payment of gratuity and provident fund to working journalists and regulates the hours of work, holidays with pay, notice period for termination of service. The important provisions of the Act are—(1) appointment of Wage Boards, their composition and power, (2) an employer must give six months' notice to an editor and three months' notice to other working journalists in case of retrenchment. *Employees' Provident Funds* Act 1952 has been extended to all newspaper establishments employing twenty working journalists or more. The Act prescribes a maximum of 144 working hours during four consecutive weeks for a journalist. It also contains provision for a weekly holiday, casual leave, earnest leave and leave on medical grounds. *Prize Competition Act*, 1956 prohibiting the running of cross-word competitions in which prizes for more than Rs. 1,000 are offered has been passed. The promoters of the competition offering prize upto Rs. 1,000 will be required to take out licences and also keep regular accounts for showing them to the licensing authority. The Act will apply to all States in India except four, namely, Punjab, Bihar, West Bengal and Kerala whose legislatures have not yet passed resolutions in favour of the Act. *The Press and Registration of Books Act of* 1817 regulates printing presses and newspapers of India, preservation of copies of books and newspapers printed in India and the registration of such books and newspapers. This Act was amended by the Amending Act of 1955 which provides for appointment of a Press Registrar with powers mainly on the side of collecting statistics and information on economic working of newspapers. The Registrar of Newspapers was appointed on July 1, 1956 with headquarters in New Delhi. The publishers of newspapers are to furnish to the Press Registrar information, statistics and returns required by him. The Press Registrar is authorised to issue certificates of registration to newspapers.

The Delivery of Books and Newspapers (Public Libraries) Act 97 of 1954 makes it obligatory for the publisher of every newspaper, to supply free of charge a copy of each issue of such newspaper to each of such public libraries as may be notified in this behalf by the Central Government in the official gazette. *The Parliamentary Proceedings (Protection of Publication) Act* 24 *of* 1956 provides that no person shall be liable to any proceedings, civil or criminal, in respect of publication in a newspaper or by means of wireless telegraphy, of a substantially true report of any proceedings of either House of Parliament, unless the publication is proved to have been made with malice. *The Drugs and Magic Remedies (Objectionable Advertisements) Act* 21 of 1954 provides to control the advertisement of drugs in certain cases, to prohibit the advertisement for certain purposes of remedies alleged to possess magic qualities and to provide the matters connected with it. *Copyright Act* 14 of 1957 amends and consolidates the law relating to copyright. It contains certain important provisions regarding the copyright of newspaper articles, articles written by paid journalists attached to newspaper offices, besides the copyright of books, films and records. *Newspaper (Price and Page) Act* 45 *of* 1954 empowers Government to issue a price-page schedule from time to time by making an order providing for the regulation of the prices charged for newspapers in relation to their maximum or minimum number of pages, sizes or areas and for the space to be allotted for advertising matter in relation to other matters.

Industrial Employment (Standing Orders) Acts 1946 has been extended to all newspaper establishments with 20 or more working journalists. The working Journalists (Industrial Disputes Act, 1955, has been repealed and its provisions incorporated in this Act.

NEWSPAPERS IN INDIA—The total number of newspapers in the country in 1957 was 5,932. In addition, there were supposed to be in existence 971 newspapers about which no particulars were available. In 1957, 800 new newspapers came into existence and 175 ceased publication.

INDIAN NEWS AGENCIES—So far as the Indian news is concerned, *Associated Press of India* started by the late Mr. K. C. Roy was the pioneer in the field. Afterwards it became a Reuter-subsidiary company. But in August 1947 Indian and Eastern Newspaper Society and Reuter came to a settlement by which a successor news agency was formed called *Press Trust of India* in the place of Associated Press of India, which now runs as a national news agency. The Press Trust of India entered Reuter's world set-up as a partner, paying for its qualifying shares with a seat on Reuter's Board and a voice in its organisational control. P.T.I. is represented in Reuter by a Trustee and a Director and is a party to the Reuter Trust. P.T.I. is a public non-profit-sharing company.

Near and Far East News (Asia) was started on April 31, 1952. NAFEN issues news bulletins in English and in almost all Indian languages from its four centres

There are other minor news agencies in India but their fields are restricted, the most important among them being *Dhiman Press of India* started in 1935, which has its headquarters in Ludhiana. It supplies news, news photos and features from all over the world to more than 100 dailies and weeklies in India Another newly started news agency is the *Hindustan Samachar Ltd*, which commenced its work in 1948

Free Press of India was founded in 1923 but was suspended in 1935. The Agency has again commenced business in 1945 But its news service is mainly confined to Free Press group of papers at Bombay.

Foreign Agencies—The Foreign News Agencies comprise—*Reuters, Associated Press of America, Agence France Pressee, Tass News Agency, Central News Agency*, International News Service of United States, United Press of America and other Some Foreign News Agencies supply world news to Indian papers and send Indian news to their clients abroad In addition to these there are press correspondents for individual papers

PRESS COMMISSION'S REPORT—The Indian Press Commission appointed by the Government of India on September 23, 1952, under the chairmanship of Mr. Justice Rajadhyaksha issued its report on the 26th July, 1954 The main recommendations of the Report are as follows—

(1) *All India Press-Council* should be set up to ensure a high standard of journalism and to censure persons guilty of unethical conduct, principally composed of people connected with the industry. The council will also be responsible for fostering the development of the press and protecting it from external pressure The functions of the proposed Council will be mainly to safeguard freedom of the press and to build up a code of journalism by censuring objectionable types of journalistic conduct and by other mean Another function will be to improve methods of recruitment and training by creation of suitable agencies such as Press Institute

(2) There should be more than one news agency functioning efficiently News agencies should not be State owned or State-controlled

(3) *Working Journalists*— The definition of the word "employee" in the Industrial Disputes Act should be extended to include within its purview working journalists as well as employees on the managerial side Alternatively a provision may be made in the proposed Newspapers and Periodicals Act making the new industrial relations legislation applicable to newspaper employees. Provisions regarding notice period, bonus, minimum wages, leave, provident fund and gratuity should also be embodied in the same legislation. Journalists should be given a minimum basic wage of Rs. 125 per month and dearness allowance. They should be entitled to pro-

vident fund, different kinds of leave and a gratuity on the basis of 15 days' pay for every year of service.

(4) A State Trading Corporation should be set up to import all newsprint. It should take over the entire output of Indian mills also and sell it along with imported newsprint at equated price.

(5) A price-page schedule for newspapers should be introduced and advertisement should not cover more than 40 p.c. of the space in a newspaper.

(6) The tendency towards the concentration in the ownership of the newspapers is an unhealthy trend and should be discouraged.

(7) Whenever possible, every paper should be constituted as a separate unit so that its profits and losses can be definitely ascertained. In the case of multiple editions, separate cost accounts should be kept in respect of each.

(8) Appointment of a Press Registrar who should be responsible for the compilation of facts and figures relating to the newspaper industry. It should be made incumbent on each newspapers and periodical to file certain returns with the Registrar.

NEWSPAPER ASSOCIATIONS—There are at present four All-India main bodies in India which seek to promote the welfare of Indian newspapers and better understanding and appreciation of each other's difficulties—(1) *Indian and Eastern Newspaper Society* started in February 1939, the objects of which are as follows: (*a*) to act as a central organisation of the Press of India, Burma and Ceylon, (*b*) to promote and safeguard the business interests of members as affected by the action of Legislatures, Governments, the Law Courts, municipal and local bodies and associations or organisations, etc. (*c*) to collect information upon all topics having a practical interest for members and to communicate the same to them, (*d*) to promote co-operation in all matters affecting the common interests of members, (*e*) to hold periodical conferences of its members to discuss and determine act on matters of common interests, (*f*) to make rules to govern the conduct of its members in specified matters, to provide penalties for the infringement thereof, and to provide means of determining whether there has been such infringement, (*g*) to maintain a permanent secretariat in India, which should watch over the interests of members and should permit of a constant interchange of information and views, (*h*) to do all such other things as may be conducive to the attainment of the aforesaid objects.

(2) *All-India Newspaper Editors' Conference* was started in 1940 Its constitution is as follows : (*a*) to preserve the high traditions and standard of journalism, (*b*) to serve and safeguard the interests of the press in regard to the publication of news and fair comment, (*c*) to secure all facilities and privileges to the press for the due discharge of its responsibilities, (*d*) to represent the press in India in its relations with public and public institutions and particularly in its relations with Government, to set up Committees that would act as liaison between the Government and the press as a whole, (*e*) to establish and develop contacts with Associations with similar objects in other countries. The A.I.N.E.C. is primarily concerned with the editorial side of the newspapers, while Indian and

Eastern Newspaper Society and Indian Language Newspapers' Association are concerned with the business aspects of the newspaper industry.

Another Association has also been started known as (3) *Indian Languages Newspapers' Association* (established in 1941) for the welfare of newspapers in Indian languages. It is the only organisation in India representing the interests of small newspapers, periodicals and magazines. About 80 newspapers and periodicals are members of this Association.

(4) *Indian Federation of Working Journalists* came into being on October, 1950. At present there are 22 units affiliated to the Federation. It is the organisation of the employees.

Audit Bureau of Circulations (A.B.C.)—This Bureau was established 10 years ago. The chief work of the Bureau is to collect all information about the newspaper circulation and tò give a certificate of approved number of newspaper circulation. The membership of the Bureau in 1948 was 294.

Commonwealth Press Union—This Union was originally known as Empire Press Union. It is a body of newspaper proprietors from Commonwealth countries with headquarters in London and Sections in the Commonwealth countries. Its aims are to promote the welfare of the Commonwealth Press by all possible and legitimate means, to defend the privileges and freedom of the Press and to promote conferences in various Commonwealth countries.

INFORMATION AND PUBLICITY OF THE CENTRAL AND STATE GOVERNMENTS—The Indian Government Publicity work is carried out chiefly through the Ministry of Information and Broadcasting. This Ministry is responsible for the following functions—(1) *All India Radio*, (2) *Press Information Bureau*, (3) *Directorate of Advertising and Visual Publicity*, (4) *Publications Division*, (5) *Films Division*, (6) *Research and Reference Division*, (7) *Registrar of Newspapers for India*, (8) *Five-Year Plan Publicity.*

There is not only Press Information Bureau under the Informamation Officers attached to each Central Ministry, Public Relations Officers, or Press Attaches attached to Indian Embassies and consular establishments abroad and Public Relations Officers for Railways and other governmental agencies, but there are also Information Ministers in the States controlling information departments under the Directors of Publicity.

INFORMATION SERVICES

Press Information Bureau—This Department of the Ministry of Information and Broadcasting provides information services to Indian and foreign press on the activities of the Government of India. These Services are available in English and twelve regional languages. It also keeps Government informed of the views and comments in the Press on Government policies and actions. A unit of the Bureau supervises the public relations work of the Community Projects Administration and co-ordinates publicity through other media. Wing of the Press Information Bureau functions as an integral part of the Bureau in all matters connected with publicity for the Ministry of Defence and the Armed Forces. Similarly, the publicity units of the Bureau, attached to the Ministries of Food and Agriculture and Railway and the Planning Commission, co-ordinate publicity through various media.

Accredited Correspondents—There are at Delhi, representing Indian and foreign newspapers, nearly 160 correspondents accredited to the Government of India, to whom the Press Information Bureau extends facility for collection of information.

Foreign Journalists—Facilities are extended to visiting foreign correspondents, editors, columnists, photographers, news-reel and documentary cameramen, broadcasters and television producers.

Services in Indian Languages—For the release of services in different languages, there are regional offices and distribution centres in Delhi (Hindi & Urdu), Bombay (Marathi & Gujarati), Madras (Tamil & Telugu), Bangalore (Kannada), Ernakulam (Malayalam), Calcutta (Bengali), Gauhati (Assamese), Cuttack (Oriya), Nagpur (Marathi), Lucknow, Patna and Varanasi (Hindi), and Jullundur (Punjabi).

Feature Services—Programme of feature services includes illustrations and texts Illustrated features are issued on special occasion , such as Handicrafts Week, Republic Day, etc.

Distribution of Materials—Blue books and other Government publications are distributed to newspapers for their record and reference. Newspapers are assisted to bring out special supplements on occasions of national or international importance.

Press Tours—are organised by the Bureau to various regions and development projects to provide an opportunity to journalists to form their own impressions of the progress made in implementing various projects under the Plan.

Photographic Services—Prints of news and feature photographs are distributed to newspapers. A new photo service '*In the news*" interpreting current events through photographs with adequate details and background information, has been introduced for the benefit of second line papers which cannot get spot news photographs in time. Accredited photographers are also invited to cover official functions. There is a Photo Library which maintains albums of classified photographs.

Ebonoid Service—This Service started in 1954 assists second and third line Indian language newspapers and periodicals with blocks.

Services for Official Information—Clippings are supplied daily to the Ministries on subjects in which they are interested.

Information Centres—The Bureau has information centres at New Delhi, Jallundur, Calcutta, Bombay, Madras, Srinagar, Lucknow, Patna, Hyderabad, Trivandrum, Rajkot, Nagpur. Other two centres have also been opened at Bhakra-Nangal and Hirakud.

Publications Division—This Division of the Government of India is responsible for the production, sale and distribution of popular pamphlets, books, magazines, etc., which provide the general public at home and abroad with true information about the people and their culture, places of tourist information, and the progress of the various development programmes in the country. This publicity is undertaken in English, Hindi and regional languages. The Division also gives advice to the Ministries and the departments of the Government on the preparations and productions of publicity literature.

Magazines—The Division continues to publish 20 magazines including three A.I.R. programme journals. These magazines cover various aspects of governmental activity and the publications are intended to serve the needs of the readers at home and abroad. The Division also advises the various Ministries on the preparation and production of publicity literature. The following are the periodicals published by the Division—(1) *A. I. R. Selections*, (2) *Prasarika*. These two contain important radio talks. (3) *Social Welfare*, a monthly Journal of the Central Social Welfare Board ; (4) *India—A Reference Annual* (yearly) ; (5) *March of India* — English bi-monthly for external publicity ; (6) *Kashmir*—An English monthly on Kashmir ; (7) *Ajkal*, a monthly published in Hindi and Urdu, which seeks to promote better understanding between the various cultural regions of the country ; (8) *Bal Bharati*, a Hindi monthly journal for children and (9) *Kurukshetra*, the monthly journal for Community Projects Administration ; (10) *Indian Information* ; (11) *Yojana* ; (12) *Metric Measures*.

Books and Publications—Books, pamphlets, etc., both for general publicity and publicity for the Five-Year Plan, are released in English, Hindi and the regional languages ; some of the recent publications are : art books and speeches of Jawaharlal Nehru, Dr. Rajendra Prasad and Dr. S. Radhakrishnan, etc. Large number of publications on tourist publicity are also released every year, such as, *Museums and Art gallaries*, *Kashmir*, etc., etc. Among other important publications are the following—*Contemporary Indian Painters*, *Women of India*, *the Way of the Buddha*, *Literatures in modern Indian Languages*, etc., etc. Several publications containing important broadcast talks in English and Hindi and regional languages are published every year. Mahatma Gandhi's collected works are being published also.

Photo and Art Sections—The Division has these two sections. The Art Section is responsible for the designs, illustrations, maps, charts, pictographs, lay-outs, etc., required for the publications produced and issued by the Division. The Photo Section covers local and outstation assignments. The Section supplies prints to various Ministries.

Distribution Section—This Section handles copies of various publications for sale and free distribution. It also sets up stalls at important conferences and occasions.

Directorate of Advertising and Visual Publicity—This Department is meant for the publicity requirements of the Government of India. Apart from being responsible for planning, production and release of display, press advertising, the Directorate has been entrusted with all classified advertising of the Ministries of the Government of India (except Railways) and their attached and subordinate Offices. In the sphere of Visual Publicity, different display media, like posters, broadsheets, folders, pamphlets, leaflets, calendars, blotters, etc., have been utilised for various publicity campaigns. A beginning has been made for more effective use of the out-door publicity media, like hoardings, neon-signs, enamel-boards, cinema slides, etc. There is an *Exhibition Wing* which has seven Regional Exhibition Units at Ambala, Indore, Hyderabad, Allahbad, Coimbatore, Calcutta and Bombay. These Exhibition Units are fitted on five-ton chassises, which move from village popularising the achievements of the Five-Year Plan. *Display Advertisements* in newspapers and periodicals cover such major campaigns as Five-Year Plan, Small Savings, Decimal Coinage, Tourism, Handloom and Handicrafts products, Anti-untouchability, Metric system, etc. *Classified Advertisements* are realeased on behalf of various Ministries of the Government of India. Increasing emphasis is being laid on *Visual Publicity* material. *Outdoor Publicity* is also carried on with the production of permanent metal calendar for the National Savings Organisation; Enamel Boards for Five-Year Plan; Hoarding for publicity of Five-Year Plan, Small Savings and Handloom Fabrics. Another medium of publicity is *Exhibitions* which have proved to be very popular and effective media of visual publicity. Exhibition Division participates or organises Exhibitions. *The Distribution* section handles despatch of publicity materials to about 21 lakh addresses, coverning various categories of recipients. *Exhibition of books and Display of publicity materials* are held every year when State Awards for exellence in printing & designing of books and other display publicity materials are given away.

Research and Reference Division—The main function of this Division are to furnish reference materials and background notes for publicity purposes to the Ministry of Information and Broadcasting and the various media units under it. So the functions can be classified like these— (1) to undertake basic research on matters of publicity, (2) to build up an indexed reference compendium of current events, (3) to compile a Year Book to give a comprehensive picture of the activities of the Central and State Governments.

This Division has started issuing a regular bi-weekly service '*Background of News*' giving background notes to selected news items of topical interest. This Service also includes a series on eras, anniversaries, festivals, etc., highlighting the significant land-marks in the cultural and social heritage of the nation. The Division has undertaken the issue of periodical 'Reference Papers' on subjects of long-term interest. The Division has been maintaining since 1951 an index of new items—national and international. Selective in nature, the coverage of new items is governed by the reference value.

Films Division—The Films Division is responsible for the production and distribution of documentary films, cartoons and newsreels. Films Division of the Ministry of Information and Broadcasting with its headquarters, is at 91, Welkessyar Road, Bombay. The Division is divided into four main departments as under—(*i*) *Production Department* which has Documentary Section and Newsreel Section

(ii) *Distribution Department* (iii) *Publicity Department* (iv) *Administration Department.*

There is also Central Board of film censors which works as a single censoring authority for certification of films for the whole of India.

The Films Division produces, on an average, one newsreel a week and about 42 documentaries a year. All the films for internal circulations are produced in five languages—Hindi, Bengali, Tamil, Telugu and English. By arrangements with some foreign newsreel companies, facilities have been made available for the exhibition of important Indian newsreels abroad. The distribution of films is carried out by five branch centres at Bombay, Calcutta, Nagpur, Lucknow and Madras A unit has been set up for the training of our artistes and technicians in the art of carbon films under the guidance of a foreign expert.

Registrar of News-papers for India—The office of the Registrar of Newspapers for India was set up on July 1, 1956 in pursuance of the recommendations of the Press Commission The Press Registrar is the statutory authority for the collection of statistics regarding the Press in the country under the *Press and Registration of Books (Amendment Act, 1955)* Under the Press Registrar, a central agency has been created to maintain a Register of newspapers containing prescribed particulars about every newspaper in India as well as information about ownership and statistics about their circulation

GOVERNMENT OF INDIA TOURIST INFORMATION OFFICES—The Government of India have regional Tourist offices in Bombay Calcutta Madras and Delhi Tourist Information Offices are already functioning in Srinagar, Agra and Banaras New Tourist Information offices have just been opened at Simla, Ootacamund, Bangalore and Aurangabad The functions of the Tourist Information Offices are to give information to Indian and Foreign tourists regarding tourist amenities, help them in planning itineraries, and circulate tourist publicity materials with a view to promoting tourism. These offices also help in the development of tourist facilities in their respective areas.

FOREIGN INFORMATION SERVICES

U. N. Information Centre—Theatre Communication Building, Queen's Way, New Delhi, disseminates information of the activities of the United Nations to Indian People

U S. Information Services—Offices at New Delhi, Bombay, Calcutta, Madras, Hyderabad, Bangalore, Trivandrum

British Information Services—Office New Delhi; Branches at Bombay, Calcutta and Madras.

F. A. O Information Centre—has been established for dissemination of useful information resulting from the work of the Food and Agriculture Organisation of United Nations, Theatre Communication Building, New Delhi. It covers Ceylon, India, Indonesia and Nepal.

W. H. O. Public Information Unit—The office for South-East Asia is at Patiala House, Hardinge Avenue, New Delhi. It covers the area of Burma, Ceylon, Indonesia and Thailand. The unit issues press

releases, pamphlets, features, photographs, etc. concerning the activities of W. H. O.

Dominion of Canada—4 Aurangzeb Road, New Delhi. *Australia*—Australian High Commission, Connaught Place, New Delhi.

IMPORTANT INDIAN NEWSPAPERS

WEST BENGAL

Dailies

Statesman (*Eng.*) : 4, Chowringhee Square, Calcutta.

Amrita Bazar Patrika (*Eng*): 12, Ananda Chatterjee Lane, Calcutta

Hindustan Standard (*Eng.*) : 6, Sooterkin St, Calcutta-1.

Ananda Bazar Patrika (Beng.) : 6, Sooterkin St, Calcutta-1

Basumati (*Bengali*) . 166, Bowbazar Street, Calcutta

Loka-Sevak (*Bengali*) : 86-A, Lower Circular Road, Calcutta.

Jugantar (*Bengali*) 2, Ananda Chatterjee Lane, Calcutta-3

Janasevak (*Bengali*) 27/C, Beadon Street, Calcutta-6.

Swadhinata (*Bengali*) 33 Alimuddin St, Calcutta 16.

Lokmanya (*Hindi*) 94/3, Lower Chitpur Rd Calcutta 7

Rozana Hind (*Urdu*) . 17, Sagar Dutt Lane Calcutta-12

Imroze (*Urdu*) : 45, Phear Lane, Calcutta 1

Viswamitra (*Hindi*) : 74, Dharmatala Street, Calcutta-13

Sanmarg (*Hindi*): 160C, Chittaranjan Avenue, Calcutta-7

Asre Jadid (*Urdu*): 9/B, Balai Dutta Street, Calcutta.

Periodicals

Basumati (*Bengali Monthly*) : 166, Bowbazar Street, Calcutta.

Bharatvarsa (*Bengali Monthly*): 203-1-1, Cornwallis St., Cal.

Prabasi (*Bengali Monthly*) : 120/2, Upper Circular Road, Calcutta.

Betar Jagat (*Radio Bengali Fortnightly*) : 1, Eden Garden, Calcutta-1.

Sanibarer Chiti (*Bengali Monthly*) . 57, Indra Biswas Road, Calcutta-37.

Mahila (*Bengali Monthly*) : 123/1, Upper Circular Road, Calcutta.

Mauchak (*Children's Bengali Monthly*) : 14, Bankim Chatterjee St., Calcutta—12.

Modern Review (*Eng. Monthly*) : 120/2, Upper Circular Road, Calcutta-9.

Newmans' Indian Bradshaw : (*English Monthly*) . 3, Old Court House St., Calcutta.

Capital (*Eng Financial weekly*): Mission Row, Calcutta.

Ulto Rath (Bengali monthly) : 22-1, Cornwallis Street, Cal.

Jalsa (*Beng Cinema Monthly*) : Calcutta.

Indian Finance (*Eng. Financial Weekly*). 116A, Lower Circular Road, Calcutta.

Hindustan Year-Book (*English Annual*) . 14, Bankim Chatterjee St., Calcutta-12.

Cine Advance (*Eng. Weekly*) : 74, Dharamtala St., Cal.-13.

Desh (*Bengali Weekly*) : 6, Sooterkin St., Calcutta-1.

Samakalin (*Bengali 'Monthly*) : 24, Chowringhee Road, Cal.-13.

Himadri (*Beng. Weekly*): 16, Ganesh Ch. Avenue, Cal.-13.

Basudhara (*Beng. Monthly*): 42, Cornwallis Street, Calcutta-6.

Yugavani (*Beng. Weekly*): 120/2, Upper Circular Rd., Cal.

Abhinaya (*Hindi Monthly*): 61, Muktaram Babu St., Cal.-7.

Assam Review and Tea News (*English Monthly*) : Calcutta.

ASSAM

Dailies

Assam Tribune (*Eng*) : Gauhati
Natun Assamiya (*Assamese*) . Gauhati
Dainik Santidoot (*Assamese*) : Pandu (Assam)

Periodicals

Young India (*Eng Weekly*) Shillong
Assamiya (*Assamese Weekly*) Gauhati
Assam Bani (*Assamese Weekly*) Gauhati
Nabayuga (*Bengali Weekly*) Karimganj
Jugasakti (*Beng Weekly*) Karimganj
Juger Alo (*Ben Weekly*) Dhubri
Assamiya (*Assamese Weekly*) . Gauhati
Janmabhumi (*Assamese Weekly*) Jorhat
Janmabhumi (do) Gauhati
Ramdhenu (*Assamese Monthly*) . Gauhati
Deepak (*Assamese Monthly*) Gauhati
Janamat (*Ben Weekly*) Dhubri
Digboi Petroni (*Assamese Monthly*) Digboi
Asoma (*Assamese Monthly*) . Gauhati

BIHAR

Dailies

Indian Nation (*English*) Patna.
Searchlight (*English*) : Patna
Visuamitra (*Hindi*) Patna
Navarashtra (*Hindi*) Rajendra Path Patna
Sada-e-Aman (*Urdu*) Patna.
Aryavarta (*Hindi*) Patna.
Pradeep (*Hindi*) Patna
Rashtravani (*Hindi*) Patna
Sathi (*Urdu*) : Patna

Periodicals

Behar Herald (*Eng. Weekly*) : Patna
Sentinel (*Eng Weekly*) : Ranchi.
Spark (*Eng. Weekly*) : Kadam Kuan, Patna.
Navashakti (*Hindi Weekly*) : Patna-Gaya Road, Patna.
Joytsna (*Hindi Monthly*) Patna.
Yogi (*Hindi Weekly*) : Patna.
Janata (*Hindi Weekly*) : Patna.
Sangam (*Urdu Weekly*) : Patna.
Amrit (*Hindi Monthly*) Patna.
Gaon (*Hindi Monthly*) Patna.
Kishore (*Hindi Monthly*). Patna.
Hindustan Review (*Eng. Monthly*) Patna

BOMBAY

Dailies

Times of India (*English*) Dadabhai Naoroji Road Bombay
Indian Express (*Eng*) . Colaba, Bombay 5
Bombay Chronicle (*Eng*) Parsi Bazar St Fort, Bombay
Evening News of India (*Eng*) : Dadabhai Naoroji Rd Bombay
Free Press Journal (*English*) : 21 Dalal Street Fort Bombay
Free Press Bulletin (*Eng*) 21, Dalal Street Fort Bombay
Bombay Sentinel (*Eng*) Parsi Bazar Bombay
Poona Daily News (*Eng*) Poona.
Hitavada (*Eng*) Nagpur
Nagpur Times (*Eng*) Nagpur.
Bombay Samachar (*Gujarati*) . Parsi Bazar St, Fort Bombay.
Jame-e-Jamshed (*Gujarati*) . Pallard House Fort Bombay.
Janmabhoomi (*Gujarati*) Ghoga Street Bombay
Lokamanya (*Marathi*) : Ghoga St, Bombay 1
Lokasatta (*Marathi*) Sassoon Dock Colaba Bombay
Navabharat Times (*Hindi*) : Dadabhai Naoraji Rd, Bombay
Navashakti (*Marathi*) 21, Dalal St Fort Bombay
Sandesh (*Gujarati*) Ahmedabad
Sandhyakal (*Marathi*) . 13, Shenwewadi, Bombay

Vishwamitra (Hindi): Noble Chambers, Parsi Bazar Street.
Janasatta (Gujarati): Revdi Bazar, Ahmedabad.
Janmabhoomi (Gujarati): Bombay-1.
Gavakari (Marathi): Nasik.
Maratha (Marathi): Dadar, Bom.
Navakal (Marathi): Bombay.
Sakal (Marathi): Budhwar Peth, Poona.
Lokmanya (Hindi): Subhas Ch. Rd., Nagpur-2.
Navabharat (Hindi): Nagpur-2.
Guzarat Samachar (Gujrati): Ahmdabad-1.
Lokasatta (Gujrati): Baroda.
Prajatantra (Gujarati): Frere Road, Bombay.

Periodicals

Crossroads (English Weekly): Bombay.
Bharat Jyoti (Eng. Weekly): 21, Dalal St., Fort, Bombay.
Atom (English Weekly): Taj Building, Hornby Road.
March (Eng. Weekly): Parsi Bazar St. Bombay.
Blitz (Eng. Weekly): 17th Cowasji Patel St., Fort, Bom.
Current (Eng. Weekly): Tardeo Road, Bombay.
Screen (Eng. Cinema Weekly): Sasoon Dock Colaba, Bombay.
Jagriti (Eng. Weekly): Dinshaw Vacha Road, Bombay.
Janata (Eng. Weekly): 6, Tulloch Road Bombay-1.
Filmfare (Eng. Cinema Weekly): Dadabhai Naoroji Rd., Bombay.
Eve's Weekly (English): Apollo St., Bombay.
Filmindia (Eng. Monthly): 55, Phirozshah Road, Bombay.
Forum (Eng. Monthly): 10, Homi Road, Bombay.
Onlooker (Eng. Fortnightly): Sir P. M. Road, Bombay-1.
Sound (Eng. Monthly): Sir P. M. Road, Bombay-1.
Sunday Standard (Eng. Weekly): Colaba, Bombay-1.
Illustrated Weekly of India (Eng.): Dadabhai Naoroji Road, Bombay-1.
Maharatta (Eng. Weekly): Poona.
Bombay Samachar (Gujarati Weekly); Parsibazar Street, Bombay-1.
Dharmayug (Hindi Weekly): Dadabhai Naoroji Rd., Bombay.
Kesari (Marathi Tri-weekly): 568, Narayan Peth, Poona.
Janmabhumi & Pravasi (Gujarati Weekly): Ghoga Street, Bombay-1.
Swaraj (Marathi Weekly) :595, Budhwar Peth, Poona-3.
Zagmag (Gujarati Weekly): Ahmedabad-1.
Bhavan's Journal (Eng. Fortnightly): Chowpatty, Bombay-7.
Akhand Anand (Gujarati monthly): Ahmedabad.
Navaneet (Hindi Monthly): 341 Tardeo Road, Bombay-7.

MADRAS

Dailies

Hindu (Eng.): Mount Rd., Madras.
Indian Express (Eng.): Mount Road Madras.
Mail (Eng.): 201, Mount Rd., Mad.
Andhra Prava (Telegu): Mount Road, Madras-2.
Andhra Patrika (Telegu): 7, Thambu Chetty St., Madras.
Nava India (Tamil): Coimbatore & Madurai.
Dhinamani (Tamil): Mount Rd., Madras & Madurai.
Tamil Nadu (Tamil): Madurai.
Janashakthi (Tamil): Madras.
Thanthi (Tamil): Madras & Madurai.
Swadesh Mitram (Tamil): Madras

Periodicals

Sport & Pastime (Eng. Weekly) : Mount Road, Madras-2.
Sunday Standard (Eng. Weekly) : Madras-2.
Kalki (Tamil Weekly): Kilpauk, Madras.
Free India (Eng. Weekly) : 77, General Patters Rd., Madras-2.
Anandavikatan (Tamil Weekly): 151, Mount Road, Madras.
Kalaimangal (Tamil Monthly) : Madras.
Dinamani Kadir (Tamil Weekly) · Madras.
Dinamani (Tamil Weekly): Mad.
Andhra Prabha (Telugu Weekly) : Madras.
Bharati (Telugu Monthly) · 6 & 7, Thumbu Chetty Street, Mad
Andhra Patrika Illustrated (Telugu Weekly): Madras.
Andhra Prabha Illustrated (Telugu Weekly)· Madras-2.
Swadeshamitran (Tamil weekly): Madras
Telugu Swatantram (Weekly): Triplicane, Madras.
Indian Review (Eng. Monthly): Madras.
My Magazine of India (Eng. Monthly): Chintadri Pet, Madras
Chandmama (Monthly in 8 languages)· Chandmama Buildings, Madras-26.
Kathal (Tamil Monthly): Madras.

ORISSA

Dailies

Eastern Times (Eng.): Cuttack.
Matrubhumi (Oriya) : Cuttack.
Samaj (Oriya) . Cuttack.
Prajatantra (Oriya) : Cuttack.
Ganatanra Daily (Oriya) : Cuttack.

Weeklies

Asha (Oriya) : Berhampore.
Ganatantra (Oriya) : Cuttack.
Lok Sashan (Oriya) : Cuttack.
Nabeen (Oriya) : Berhampore.

DELHI

Dailies

Hindustan Times (English) : Connaught Circus, New Delhi.
Statesman (English) : Connaught Circus, New Delhi.
Indian Express, Morigate, Delhi.
Delhi Hindusthan Standard (English), Qutub Rd., Delhi.
Times of India (English) : 10, Darvaganj, Delhi.
Hindustan (Hindi) : Cannaught Circus, New Delhi.
Vir Arjun (Hindi Daily) : Mathura Road, New Delhi.
Milap (Urdu Daily): Asaf Ali Road New Delhi
Siyasat (Urdu) : 26F, Cannaught Place.
Aljamiat (Urdu) : Bara Hindu Rao, Delhi.
Pratap (Urdu Daily) : Delhi.
Watan (Urdu) : Delhi
Tej (Urdu Daily) : Delhi.
Navbharat Times (Hindi) : 10, Daryaganj, Delhi.

Periodicals.

Eastern Economist (Eng. Finance Weekly) : New Delhi
Hindustan Times Weekly (Eng): Connaught Circus, New Delhi.
Shankar's Weekly (Eng) . Connaught Circus, New Delhi.
Thought (Eng. Weekly) : Faiz Bazar, Delhi-7.
Sunday Standard (Eng. Weekly)· Morigate, Delhi
Saptahik Hindustan (Hindi Weekly): Connaught Circus, New Delhi.
Saptahik Navbharat Times (Hindi Weekly): 10,Darayaganj,
Caravan (Eng. Monthly) : Connaught Circus, New Delhi.
Indian Railways (Eng. Monthly) : Ry. Road, New Delhi.
Nav Chitrapat (Hindi Monthly): Daryaganj, Delhi.

Sarita (*Hindi Monthly*) : Connaught Circus, New Delhi.
Khidauna (*Urdu Monthly*) : 13-14, Asaf Ali Rd., New Delhi.
Shama (*Urdu Monthly*) : 13-14, Asaf Ali Rd., New Delhi.
Sainik Samachar (*8 Languages Weekly*) : New Delhi.

ANDHRA PRADESH

Dailies

Deccan Chronicle (*Eng.*) : Secundrabad
Daily News (*Eng.*): Secundrabad.
Visalandhra (*Telugu*) : Vijayawada.
Golconda Patrika (*Telugu*) : Hyderabad
Hindi Milap (*Hindi*): Hyderabad.
Sudarshan (*Marathi*): Hyderabad.
Andhra Janata (*Telegu*) : Secundrabad
Milap Daily (*Urdu*) : Hyderabad.
Siasat Daily (*Urdu*) : Hyderabad.

Periodicals

Andhra Janata (*Telegu Weekly*) Nellore.
Hithavadi (*Telugu Weekly*): Kurnool.
Kishna Patrika (*Telugu Weekly*) : Masulipatum.
Mandakini (*Teluju Weekly*) : Nellore
Manjuvani (*Telugu Weekly*) : Eluru.
Nava Shakthi (*Telugu Weekly*) : Hyderabad
Hyderabad Bulletin (*Eng. Weekly*): Secundrabad.
Vasundhara (*Telugu Weekly*) : Guntar.

RAJASTHAN

Dailies

Lokvani (*Hindi Daily*): Jaipur.
Rashtradoot (*Hindi Daily*) : Johri Bazar Jaipur
***Navajyoti* (*Hindi Daily*) : Kaiserganj, Ajmer.**
Darbar (*Hindi Daily*) : Ajmer.
Nav Yug (*Hindi Daily*) : Jaipur.

Weeklies

Lalkar (*Hindi*) : Jodhpur.
Lokamat (*Hindi*) : Bikaner.
Miran (*Hindi*) : Ajmer.
Navajyoti (*Hindi*): Ajmer.
Rajasthan Herald (*Eng.*): Jaipur.
Adhikar (*Hindi*): Jaipur.
Amar Jyoti (*Hindi*) : Jaipur.
Navajiban (*Hindi*) : Udaipur.

UTTAR PRADESH

Dailies

Amrita Bazar Patrika (*English*) : 10, Edmondstone Road Allahabad.
Amrit Patrika (*Hindi*) : 10, Edmondstone Road, Allahabad.
Leader (*English*) : 5, Leader Rd., Allahabad.
National Herald (*Eng.*) : Lucknow.
Pioneer (*English*) : Lucknow.
Telegraph (*English*): Kanpur.
Pratap (*Hindi*) . Kanpur.
Sainik (*Hindi*) : Agra.
Aj (*Hindi*) : Varanasi.
Amar Ujala (*Hindi*) . Agra.
Sanmarg (*Hindi*) . Varanasi.
Quami-Awaz (*Urdu*) : Lucknow.
Bharat (*Hindi*) : Leader Road, Allahabad.
Jagaran (*Hindi*) : Kanpur and Jhansi.
Swatantra Bharat (*Hindi*): Lucknow.
Ujala (*Hindustani*) : Agra.
Veer Bharat (*Hindi*) : Kanpur.
Paigam (*Urdu*) : Kanpur.

Periodicals

Arun (*Hindi Monthly*) : Moradabad.
***Sanmarg* (*Hindi*) : Banaras.**
Swatantra (*Hindi*) : Kanpur.
Manohar Kahaniyan (*Hindi Monthly*) : Allahabad.
Saraswati (*Hindi Monthly*) : Allahabad.

Maya (*Hindi Monthly*) : 166, Muthiaganj, Allahabad.

Manorama (*Hindi Monthly*) : Allahabad.

Roopsi (*Hindi Monthly*) : Allahabad.

KASHMIR

Khidmat (*Urdu Daily*) Srinagar, Kashmir.

Chand (*Urdu Weekly*) : Jammu, Kashmir.

PUNJAB

Dailies

Tribune (*Eng.*) : Ambala Cantt.

Pratap (*Urdu*): Jullundar.

Milap (*Urdu*) : Simultaneously from Patiala & Jullundar.

Hindi Milap : Jullundar.

Veer Arjun (*Hindi*) : Jullundar.

Khalsa Sevak (*Punjabi*) : Amritsar & Patiala.

Varatman (*Punjabi Daily*) : Amritsar.

Ajit Patrika (*Punjabi*) : Jullundar.

Akali Patrika (*Punjabi*): Jullundar.

Hind Samachar (*Urdu*) : Jullundar.

Prabhat (*Urdu*) : Jullundar.

Vir Bharat (*Urdu*) : Jullundar.

KERALA

Dailies

Express (*Malayalam*) : Trichur.

Malayala Rajyam (*Malayalam*): Quilon.

Deepika (*Malayalam*): Kottayam.

Prabhatham (do) : Quilon.

Chandrika (*Malayalam*) : Kozhikode.

Deshabhimani (*Malayalam*): Kozhikode.

Janakshemam (*Malayalam*): Trivandrum.

Janayugom (*Malayalam*) : Quilon.

Kerala Bhushanam (*Malayalam*) : Kottayam.

Kerala Kaumudi (*Malayalam-English*) : Trivandrum.

Weeklies

Malayala Rajyam (*Malayalam*): Quilon.

Janashakthi (*Malayalam*): Cochin.

Malabar Herald (*Eng.*): Cochin.

Bharatha Bhumi (*Malayalam*) : Kozhikode.

Dakshina Bharati (*Malayalam*): Trivandrum.

Kaumudi (*Malayalam*) : Trivandrum.

Chandrika (*Malayalam*): Kozhikode.

Mathrubhumi (*Malayalam Illustrated*): Kozhikode.

Monthlies

Gopuram (*Malayalam*) : Trivandrum.

Grandhalokam (*Malayalam*) : Trivandrum.

Chitrabhanu ((*Malayalam*) : Trivandrum.

Kamini (*Malayalam*) : Cochin.

HIMACHAL PRADESH

Sandesh (*Urdu Weekly*) : Mahasu.

Himachal Samachar (*Hindi Fortnightly*) : Lower Bazar, Solan.

MANIPUR

Anouba Samaj (*Manipuri Daily*): Imphal.

Ngasi (*Manipuri Daily*): Imphal.

Manipur Gazettee (*Eng. Weekly*) : Imphal.

Chithimarup (*Manipuri Monthly*) : Imphal.

TRIPURA

Jagaran (*Bengali Daily*): Agartala.

Manush (*Bengali Weekly*) : Agartala.

Samaj (*Beng. Weekly*): Agartala.

MYSORE

Dailies

Deccan Herald (*Eng.*): Bangalore.
Daily News (*Eng.*) : Bangalore.
Daily Post (*Eng.*) : Bangalore.
Samyukta Karnataka (*Kannada*) : Hubli.
Janavani (*Kannada*): Basavangudi, Bangalore-4.
Prajavani (*Kannada*): Bangalore.

Weeklies

Chitra Gupta (*Kannada Weekly*): Bangalore
Prajamata (*Kannada Weekly*) : Bangalore
Mysindia (*Eng. Weekly*) : Bangalore
Janmabhumi (*Kannada Weekly*) Mercara.
Karmaveer (*Kannada Weekly*) : Hubli
Aruna (*Kannada Weekly*): Mangalore.
Janapragathi (*Kannada Weekly*)· Bangalore.

PRESS ASSOCIATIONS

Bombay Union of Journalists, Bombay.
Ind Journalists' Association, 219B, Bowbazar Street, Cal.
Ahmedabad Journalists' Association, Ahmedabad.
Southern India Journalists' Federation, Sri Rama Buildings, 5-6, Mount Road, Madras-2.
Assam Journalists' Association, Gauhati.
Indian Newspapers' Co-operative Society Ltd., Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay.
Kerala Newspaper Editors' Association.
Marathi Journalists' Conference, Poona.
U. P. Journalists' Union, Lucknow.
Delhi Union of Journalists, Delhi.
M.P Union of Journalists, Nagpur
Federation of Indian Workking Journalists
Bihar Journalists' Association, Patna.
The Press Club (*Reporters' Club*), Calcutta.
Foreign Correspondents' Association, New Delhi.
Press Association, New Delhi.
Press Owners' Association, Bombay.
Press Owners' Association, Calcutta.
Tra-Cochin Journalsits' Association.

JOURNALISM COURSES IN INDIA

University of Madras—Post-Graduate Course in Journalism is conducted by the University.

Calcutta University—two-year diploma course.

University of Mysore—Journalism course is included as one of the optional subjects for the B.A degree of the University and is taught at the Maharaja's College, Mysore.

Hilsop College, Nagpur—Diploma and Certificate Course, each for one year's duration.

"*Hindu*" *of Madras* scholarship for journalism—one candidate is taken each year for all-round training.

Gujarati University—A journalism course introduced in the University, but no College has been started.

Osmania University—conducts two courses for Diploma of journalism for graduates and certificates of proficiency in journalism for matriculates.

Punjab University—maintains a University Journalism Department at Camp College, New Delhi, for a post-graduate course for diploma of, journalism.

INDIAN NEWS AGENCIES

Press Trust of India (P.T.I.), Bombay.
Dhiman Press of India, Ludhiana, (Punjab).
Rao's Press Features, Bangalore.
Hindustan Samachar, 29, Ghoga St., Bombay.
Press News Features, New Delhi.
Associated News Service, Troop Bazar, Hyderabad.

FOREIGN NEWS AGENCIES IN INDIA

British—Reuters, Associated Press.
France—Agence France Presse.
U.S.S.R.—Tass.
U. S. A.—Associated Press of America.
—United Press of America.
International News Service—United Press Associations Ltd.
China—Hsin Hua (New China News Agency, Peking).
Japan—Kyodo News Agency (Tokiyo) ; Jiji News Agency (Tokiyo).
Pakistan—Associated Press of Pakistan ; United Press of Pakistan.
Afganistan—Bakhtar (Kabul).
NAFEN—*Near and Far East News (Asia) Ltd.*—7, Fancy Lane, Calcutta.

INCREASE OR DECREASE OF IND. PAPER CIRCULATION IN 1957 COMPARED WITH 1956

Increase	*P.C.*	*Decrease*	*P.C.*	*Combined figures*	*P.C.*
Assamese	16.3	Gujarati	12.9	Increase of total circulation of all papers	2.8
Bengali	4.4	Malayalam	17.7		
Kannada	63.2	Marathi	16.1		
Oriya	7.0	Punjabi	16.1		
Sanskrit	150 0	Tamil	10.3	Fortnightlies (*Increase*)	84.6
Telugu	28.9	Hindi	8.8		
Urdu	0.6			Dailies (do)	8.3
English	0.9			Weeklies (do)	1.1
				Monthlies (*Decrease*)	41

LANGUAGE-WISE NEWSPAPERS

	P.C.		P.C.
English ..	20 0	Gujarati ..	6.3
Hindi ..	19.0	Marathi ..	5.4
Urdu ..	8.7	Tamil ..	4.5
Bengali ..	6.9	Others (below) ..	4

NEWSPAPER CIRCULATION

	Lakhs 1957	*Lakhs* 1956
Total Circulation (2,843 newspapers)	113	110
Dailies	31.49	29.08
Monthlies	31.62	34.79
Weeklies	30.52	30.20
Fortnightlies	14.49	7.85
Other periodicals	4.48	7.60

LANGUAGE-WISE CIRCULATION IN P.C., 1957

English	22.3	Gujarati	6
Hindi	18.5	Bengali	6.1
Tamil	9.1	Marathi	5.9
Urdu	7	Telugu	5

DAILY NEWSPAPER CIRCULATION IN LANGUAGES, 1957

	Lakhs		*Lakhs*
English	10.05	Urdu	2.03
Hindi	3.94	Circulation of Kanneda, Malayalam, Bengali, and Telugu	between one & two lakhs
Tamil	2.73		
Marathi	2.47		
Gujarati	2.26		

NUMBER OF NEWSPAPERS, 1957

Total No. of newspapers, & periodicals	4,903	(ii) Fortnightlies	517
(i) Monthlies	2,351	(iii) Dailies	446
		(iv) Weeklies	1,589

SPORTS SECTION

INDIAN CRICKET

Foreign Teams in India

G. F. Vernon's Team—(1889-90). Played 12 ; won 10 ; lost 1 and drawn 1. Captain—G. F. Vernon.

Lord Hawke's Team—(1892-93). Played 23 ; won 15; lost 2 and drawn 6. Captain—Lord Hawke.

Oxford University Authentics—(1902-3). Played 19 ; won 12 ; lost 2 and drawn 5. Captain—K. J. Key.

M. C. C. Official Team—(1925 26). Played 34 ; won 11 ; drawn 23 and lost none. Captain—A. E R. Gilligan.

All-Ceylon Team (1932-33)– Played 10 ; won 2 ; lost 1 ; drawn 7. Captain—Dr. C. H. Gunasekara.

M. C. C. Team (1933-34)—Played 34 ; won 17 ; drawn 16 and lost 1. Captain—D. R Jardine.

Australian Team (Unofficial 1935-36)—Played 23 ; won 11 ; lost 3 ; drawn 9. Captain—J. Ryder.

Lord Tennyson's Team (1937-38)—Played 24 ; won 8, lost 5 and drawn 11. Captain—Lord Tennyson.

Second All Ceylon Team (1940-41)—Played 5 ; won 1 ; lost 1 ; drawn 3. Captain—S. S. Jayawikrama.

Australian Services XI (1945-46)—Played 9 ; won 1 ; lost 2 ; drawn 6. Captain—A L. Hasset.

West Indies Team (1948-49)—Played 17 won 5 ; lost 1 ; drawn 11. Captain—John Goddard.

1st Commonwealth Team (1949-50)—Played 19 ; won 8 ; lost 2 ; drawn 9. Captain L. Livingstone.

2nd Commonwealth Team (1950-51)—Played 25 ; drawn 13 ; won 12 ; played 5 unofficial Test matches, won 2, drawn 3. Captain—L. E. G. Ames.

M.C.C. Team (1951-52)—Played 18 ; won 7 , lost 1 ; drawn 10 ; Test match played 5 ; won 1 ; lost 1 ; drawn 3. Captain—N. D. Howard.

Pakistan Team (1952)—Played 12 ; won 1 ; lost 2 ; drawn 9. Captain—A. H. Kardar.

Silver Jubilee Overseas Cricketers' Team (1953-54)—Played 21 ; won 3 ; lost 5 and drawn 13.

New Zealand Team (1955-56)—Played 10 ; won 2 ; lost 3 ; drawn 5.

Australian Team (1956)—played 3 ; won 2 ; lost 0 ; drawn 1.

Silver Jubilee O. C. Eleven (1957)—played 2 ; won 1 ; lost 1 ; First match against Dr. Roy's eleven at Calcutta lost and 2nd against C. C. of India at Bombay won.

West Indies Team (1958-59)—

Indian Teams Abroad

First Parsi Team in England (1886)—Played 28; won 1; lost 19; drawn 8. Captain—Patel.

Second Parsi Team (1888)—Played 31; won 8; lost 11; drawn 12. Captain—P. D. Kanoa.

Maharaja of Patiala's Team in England (1911)—Played 23; won 6; lost 15; drawn 2. Captain—Maharaja of Patiala.

All India Team in England (1932)—Played 36; won 13; lost 9; drawn 14. Captain—Maharaja of Porbandar

All India Team in England (1936)—Played 31; won 5; lost 13; drawn 13 Captain—Maharajakumar of Vijianagram.

All India Team in Ceylon (1945)—Played 5; won 2; lost 0; drawn 3 Captain—V. M Merchant

All India Team in England (1946)—Played 33; won 13; lost 4; drawn 16 Captain—Nawab of Pataudi.

All India Team in Australia (1947-48)—Played 19; won 4; lost 7; drawn 8 Captain—Lala Amarnath.

All India Team in England (1952)—Played 38; won 6; lost 8; drawn 24, Test match played 4; won 0; lost 3; drawn 1. Captain—V. S. Hazare.

All India Team in West Indies (1953)—Played 11; lost 1; won 1; drawn 9 Captain—V. S Hazare.

All India Team in Pakistan (1954-55) - Played 14, won 5; drawn 9.

Official Test Matches

India v. England

	Match played	*Eng won*	*India won*	*Drawn*
1932 In England	1	1	0	0
1933-34 In India	3	2	0	1
1936 In England	3	2	0	1
1946 In England	3	1	0	2
1951-52 In India	5	1	1	3
1952 In England	4	3	0	1
	19	10	1	8

India v Australia

	Match played	*Aust won*	*India won*	*Drawn*
1947-48 In Australia	5	4	0	1
1956 In India	3	2	0	1
	8	6	0	2

India v. West Indies

	Match played	*W. Indies won*	*India won*	*Drawn*
1948-49 In India	**5**	**1**	**0**	**4**
1953 In W. Indies	**5**	**1**	**0**	**4**
	10	**2**	**0**	**8**

India v. Pakistan

	Match played	*India won*	*Pakistan won*	*Drawn*
1952 In India	.. 5	2	1	2
1954-55 In Pakistan	. 5	0	0	5
	10	2	1..	7

India v. New Zealand

	Match played	*N.Zealand won*	*India won*	*Drawn.*
1955-56 In India	.. 5	0	2	3

INDIA'S TEST RECORD

Highest total—By India; 537 (3 wkts. Dec.) v. New Zealand, Madras, 1955.

—Against India · 674 by Australia, Adelaide, 1947-48.

Individual Score—For India : 231 Mankad, v. New Zealand, Madras 1955-56.

Against India : 217 Hammond (England), Oval, 1936.

Lowest Totals—By India 58 v. England, Manchester 1952 ; 58 v. Australia, Brisbane 1947-48.

—Against India · 107 Australia, Sydney 1947-48. P

Century on 1st Appearance—118 L. Amarnath v. England, Bombay, 1933-34.

110 D. H. Shodhan v. Pakistan, Cal. 1952

100 (Not out) Kripal Singh v. New Zealand, Hyderabad, 1955.

Highest stand for any wicket in India—413 (1st wkt.) India v. New Zealand Mankad (231) and P. Roy (173)—413 (1st wkt.).

CRICKET CHAMPIONSHIP OF INDIA
Winners of Ranji Trophy

[A gold cup presented by the Maharaja of Patiala in memory of the famous Indian Cricketer, Prince Ranjitsinji]

1934-35	Bombay
1935-36	Bombay
1936-37	Nawanagar
1937-38	Hyderabad
1938-39	Bengal
1939-40	Maharashtra
1940-41	Maharashtra
1941-42	Bombay
1942-43	Baroda
1943-44	Western India
1944-45	Bombay
1945-46	Holkar
1946-47	Baroda
1947-48	Holkar
1948-49	Bombay
1949-50	Baroda
1950-51	Holkar
1951-52	Bombay
1953-54	Bombay
1954-55	Madras
1955-56	Bombay
1957-58	Baroda

Ranji Trophy Records

Great Totals

912—Holkar *v.* Mysore for 8 wickets, 1945-46.

826—Maharashtra *v.* Western India States, 1948.

798—Maharashtra *v.* Northern India, 1940.

784—Baroda *v.* Holkar, 1946.

764—Bombay *v.* Holkar, 1944.

760—Bengal *v.* Bombay, 1951-52.

757—Holkar *v.* Hyderabad, 1950.

735—Bombay *v.* Maharashtra, 1943.

725—Bombay *v.* Maharashtra for 8 wickets, 1950.
714— Do Do for 8 wickets, 1948.
675—Maharashtra *v.* Bombay, 1940.
658—S. Punjab *v.* N. India for 8 wickets, 1945.
651—Bombay *v.* Maharashtra, 1941.
650—Maharashtra *v.* Baroda for 9 wickets, 1949.
645—Bombay *v.* Baroda, 1945
638—Bombay *v.* Sind for 8 wickets, 1947.
632—Bombay *v.* Maharashtra for 7 wickets, 1947.

Ranji Trophy Records—(*Concld.*)

Highest partnership record—Gul Mahomed (319) and Hazare (254 not out) (*4th wicket partnership*).
—577 runs for Baroda *v.* Holkar, 1946 47 (*World Record*).

Most centuries in an innings—6 centuries by Holkar *v.* Mysore, 1945-46—*a world record.*

Highest aggregate in one innings—1325 runs by Maharashtra *v.* Bombay, Poona, (1941-42).

Lowest Victory—By one run, Bengal *v.* Bihar (1941-42).

Smallest Total—22 runs, S. Punjab *v.* N. India (1934).

Lowest innings total: 22 (S. Punjab) *v.* Uttar Bharat, Amritsar, 1934.

Most centuries in a match: 9, Bombay (5) *v.* Maharashtra (4), Poona, 1948-49 (*World Record*).

Highest match aggregate: 2376 for 38 wickets (Bombay *v.* Maharashtra, Poona, 1948-49) *World Record.*

Highest Individual Scores in the Ranji Trophy

*443 B B Nimbalkar (Maharashtra) v Western Indian States (1948-49).
*359—V M Merchant (Bombay) v Maharashtra (1943-44).
319—Gul Mahomed (Baroda) against Holkar (1946-47).
*316—V S. Hazare (Maharashtra) against Holkar (1944-45)
288—Hazare (Baroda) against Holkar (1946-47).
278—V. M Merchant (Bombay) against Holkar (1944-45).
*249—D. Compton (Holkar) (1944-45).
246—D B. Deodhar (Maharashtra) against Bombay (1940-41).
*245—R S Modi (Bom.) against Baroda (1944-45).
*234—V. M. Merchant (Bombay) against Sind (1945-46).
233—S. Mushtaq Ali (Holkar) against U. P.
217—V. M. Merchant (Bombay) against W. India (1944).
217—V. M. Merchant (Bom.) against Hyderabad (1947).
*230—K. C. Ibrahim (Bom.) against N.-W. India (1941-42).

Rohinton Baria Inter-University Cricket

[*Gold cup presented by Mr. A. D. Baria of Bombay to perpetuate the memory of his son, Rohinton Baria who died at an early age.*]

---

*Not out

1935-37 Punjab Univ.; 1938-42 Bombay Univ.; 1943 Punjab Univ.; 1944-49 Bombay Univ.; 1950-51 Mysore Univ.: 1952 Bombay Univ.; 1953 Bom. Univ.; 1954 Delhi Univ.; 1955-57 Bom. Univ.

FOOTBALL

I. F. A. Shield, Calcutta

(Started in the year 1893)

1930 Seaforth Highlanders; 1931 H. L. I.; 1932 2nd Bn. Essex Regt.; 1933 D. C. L. I.; 1934 *Game abandoned*; 1935 East Yorks: 1936 Mohamedan Sp.; 1937 6th Field Brigade; 1938 East Yorks); 1939 Police A.C.; 1940 Aryans; 1941-42 Mohamedan Sp.; 1943 East Bengal; 1944 E.B. Rly.; 1945 East Bengal; 1946 *Abandoned*; 1947 Mohan Bagan; 1948 Mohan Bagan; 1949-51 East Bengal; 1952 Finalists Mohan Bagan and Rajasthan (*match abandoned*); 1953 India Culture League (Bom.); 1954 Mohan Bagan; 1955 Rajasthan; Club (Cal.); 1956 Mohan Bagan; 1957 Mohamedan Sp.; 1958—*Undecided.*

First year's winner: Royal Irish Rifles, 1893.

Champions (3 successive years): Gordon Highlanders (1908-10); Calcutta F. C. (1922-24): Sherwood Foresters (1926-28); East Bengal (1949-51).

Winners of the highest number of times—Calcutta F. C.—9 times.

Rover's Cup, Bombay

(Started in 1891)

1930 K. O. S. B; 1931 Royal W. Kents; 1932 Royal Irish Fusiliers; 1933 King's Liverpool Regt.; 1934 Sherwood Foresters; 1935-36 King's Liverpool Regt.; 1937-38 Bangalore Muslims; 1939 28th Field Brigade; 1940 Mohamedan Sporting, Calcutta; 1941 Welch Regiment: 1942 Bata Sp. Club (Calcutta); 1943 R. A. F.: 1944 British Base Reinforcement Camp: 1945 Military Police; 1946 British Base Reinforcement Camp; 1947 *Tournament abandoned due to stand collapse*: 1948 Bangalore Muslims; 1949 East Bengal; 1950-54 Hyderabad Police; 1955 Mohan Bagan; 1956 Mahomedan Sporting; 1957 Hyderabad Police; 1958 Caltex (Bombay).

Durand Cup, Delhi

(Started 1888)

1950 Hyderabad Police; 1951-52 East Bengal; 1953 Mohan Bagan; 1954 Hyderabad Police; 1955 Madras Regimental Centre; 1956 East Bengal; 1957 Hyderabad Police; 1958 Madras Regimental Centre.

D. C. M. Football Competition, Delhi

1949 Raisina Sp. Union (Delhi); 1950 East Bengal; 1951 Rajas than Club; 1952 East Bengal; 1953 Aryan Gymkhana (Bang.); 1954

Geological Survey of India (Calcutta) ; 1955 Indian Air Force ; 1956 Indian Air Force ; 1957 East Bengal ; 1958 Mohamedan Sp. (Cal.).

National Football Championship
(*Santosh Memorial Trophy*)

[The trophy for the championship was donated by the I.F.A. (Bengal) in memory of the late Raja Manmatha Nath Ray Chaudhury of Santosh, who was the president of the I F.A. for many years.]

1941	Bengal.	1947	Bengal.	1952	Mysore.
1942-43	*No Play.*	1948	*No Play.*	1953	Bengal.
1944	Delhi	1949	Bengal.	1954	Bombay.
1945	Bengal	1950	Bengal.	1955	Bengal.
1946	Mysore.	1951	Bengal.	1956	Hyderabad.
				1957	Do

Inter-University Football Championship
(*Sir Ashutosh Mukherjee Trophy*)

1941	**Calcutta.**	1950	**Calcutta.**
1942	**Punjab.**	1951	**Nagpur.**
1943	**Punjab.**	1952	**Aligarh.**
1944	**Punjab.**	1953	**Calcutta.**
1945	**Aligarh.**	1954	**Osmania.**
1946	**Madras.**	1955	**do**
1947	**Madras**	1956	**do**
1948	**Madras.**	1957	**Calcutta.**
1949	**Mysore.**	1958	**Punjab**

HOCKEY

National Hockey Championship (Rangaswami Cup).
(*Started in 1928*)

1928 U. P. ; 1930 Railways ; 1932 Punjab ; 1934 *No Competition* ; 1936 Bengal ; 1938 Bengal ; 1940 Bombay ; 1942 Delhi ; 1944 Bombay ; 1945 Bhopal ; 1946 Punjab ; 1947 Punjab ; 1948 Bhopal ; 1949-51 Punjab ; 1952 Bengal ; 1953 Services ; 1954 Punjab ; 1955 Madras & Services (*joint holders*) ; 1956 Services ; 1957 Indian Railways ; 1958 Indian Railways

Beighton Cup, Calcutta
(*Started in 1895*)

1931-32 Cal. Custom ; 1933 Jhansi Heroes ; 1934 Cal. Rangers ; 1935 Cal. Customs ; 1936 Bombay Customs ; 1937 B. N. Railway (*Kharagpur*) ; 1938 Cal. Customs ; 1939 B. N. Ry., (*Kharagpur*) ; 1940 Bhopal Wanderers ; 1941 Bhagwant Club (*Tricumgarh*) and Bhopal Wanderers ; 1942 Cal. Rangers ; 1943-45 B. N. Ry. (*Kharagpur*); 1946 Port Commissioners (Cal.) ; 1947 *No game* ; 1948 U. P. XI & Port Commissioners (*Calcutta*) ; 1949-50 Tata Sports (*Bom.*) ; 1951 Hindustan Aircraft ; 1952 Mohun Bagan ; 1953 Tata Sports (*Bom.*) ;

1954 Tata Sports (*Bom.*); 1955 Western Railway & U.P. XI (joint holders); 1956 Services; 1957 East Bengal; 1958 Mohun Bagan.

First year's winner—Naval Volunteers, 1895.

Highest number of winner—Calcutta Customs—11 times.

Aga Khan Cup, Bombay

1934 Bombay Customs; 1935 Bombay Customs; 1936 Bombay Customs; 1937 Lahore Y. M. C. A.; 1938 Bhagwant Club (*Tricumgarh*); 1939 Bhopal Wanderers; 1940 B. B. C. I. Ry.; 1941 Bhagwant Club (*Tricumgarh*); 1942 *No play*; 1943 G. I. P. Ry.; 1944 Kamala Club (*Kanpur*); 1945 Kamala Club (*Kanpur*); 1946 Kalyanmal Mills (*Indore*); 1947 Rawalpindi Spartans; 1948 Kirkee United; 1949 East Punjab Police; 1950 Tata Sports; 1951-52 Tata Sports (*Bombay*); 1953 Lusitanians (*Bom.*); 1954 *Abandoned*: 1955 Punjab Police; 1956 Bombay State Police; 1957 Madras Engineer Group (*Bangalore*); 1958 Burmah Shell.

Women's National Hockey Championship
Inaugurated in 1938—*Lady Ratan Tata Cup*

1938	.. Kharagpur	1949	.. Bombay.	1953	.. Bombay & Bengal.
1939	.. Calcutta.	1950	.. M. P.		
1947	.. Bombay.	1951	.. Bombay.	1954-55	M P.
1948	.. Bombay.	1952	.. Bombay.	1955-56	M. P.

Dhyan Chand Hockey Tournament
(In honour of Dhyan Chand's services to Indian Hockey)

1952—Punjab Police
1953—Hindusthan Aircraft.
1954—Western Ry.
1955—Sikh Regimental Centre (Meerut).
1956—Northern Ry. & Corps. of Signals (Jabalpur).
1957—Madras Engineer Group (Bangalore).

BILLIARD CHAMPIONS
(Started in 1931)

1941—V. R. Freer (Madura).
1942—V. R. Freer (Madura).
1943-45—*No game.*
1946—C. Hirjee (Calcutta).
1947—C. Hirjee (Calcutta).
1948—V. R. Freer (Madura).
1949—T. A. Selveraj (Bangalore).
1950—Wilson Jones (Bombay).
1951—Wilson Jones (Bombay).
1952— Do.
1953—A. Driffield (England).
1954—Wilson Jones (Bombay).
1955—C. Heerjee.
1956—Wilson Jones (Bombay).
1957— Do.
1958—

NATIONAL BASKETBALL CHAMPIONSHIP
(Todd Memorial Trophy)

1952	..	Mysore.	1955	..	Mysore.
1953	..	Mysore.	1956	..	Mysore.
1954	..	Mysore.	1957	..	Services.

NATIONAL BADMINTON, 1958

Men's Singles—Nandu Natekar.

Women's Singles—Susila Kapadia.

Men's Doubles—Nandu Natekar & M. K. Bopardikar.

Women's Doubles—Susila Kapadia & Miss Prem Prashar.

INDIAN ATHLETIC RECORDS

MEN'S EVENTS

Hop Step & Jump ..	H. Rebello (Mysore)	'48	50 ft. 2 in.
Pole Vault .	A. Ramchandran (Mad.)	'58	12 ft. 5 in.
Hammer throw ..	Devidayal (Services)	'58	166 ft. 9 in.
Discus throw .	Parduman Singh (Servs.)	'56	153 ft. 6¼ in.
Javelin throw	Bakshish Singh (Punjab)	'58	199 ft. 4 in.
Shot Put	Praduman Singh (Servs.)	'56	48 ft. 10½ in.
High Jump ..	Ajit Singh (Punjab)	'56	6 ft. 5 in.
Broad Jump	Ram Mohan (Services)	'56	24 ft. 4¼ in.
Decathlon ..	C. M. Muthna (Mysore)	'58	5615 pts.
100 yards run ..	R. A Verneaux (Bom.)	'34	9·7 s.
200 " " ..	E. Whiteside (Punjab)	'36	21·8 s.
400 " " ..	G. P. Bhalla	'34	50·0 s.
One Mile " ..	Chand Singh (Patiala)	'38	4 m. 25·6 s
Three Miles " ..	Raunak Singh "	'34	15 m. 3·7 s.
Five Miles " ..	Gujjar Singh (Punjab)	'34	27 m. 10 s.
Six Miles " ..	Raunak Singh (Patiala)	'35	31 m. 33·5 s
100 metres " ..	Balwant Singh	'54	10.5 s.
200 " " ..	Milkha Singh (Services)	'58	21.6 s.
400 " " ..	Milkha Singh (Services)	'58	46.6 s.
800 " " ..	Sohan Singh (Services)	'56	1 m. 52·0 s.
1,500 " " ..	Kulwant Singh (Services)	'56	3 m. 56·8 s.
3,000 " " ..	Chand Singh (Patiala)	'14	8 m. 49·9 s.
5,000 " "	Arjun Singh (Services)	'58	14 m. 57.2 s.
10,000 " " ..	Buta Singh (Services)	'55	30 m. 49·3 s.
15,000 " " ..	C. S. A. Swami (Bom.)	..	58 m. 16·4 s.
20,000 " " ..	C. S. A. Swami (Bom.)	..	1 h. 16 m. 0 s.
20,000 " " ..	R. G. Michael "	..	2 h. 13 m. 50 s.
Marathon ..	Gulzara Singh (W. Beng.)	'58	2 h. 23 m 58·4 s.
20 000 M. walk	Jora Singh (Services)	'58	1 h. 38m. 42.2 s.
50 kilometres walk ..	Ajit Singh (Services)	'55	4 h. 47 m. 29·6 s.
4×100 m. relay ..	Services	'58	42.6 s.
1 600 " " ..	Bombay Team	'50	50 m. 26 s.
4×400 " " ..	Services	'58	3 m 15.1 s.
110 metre hurdles ..	Srichand (Services)	'56	14·5 s.
400 " "	Jagdev Singh (Services)	'58	52.5 s.
3,000 m. Steeplechase	Pan Singh (Services)	'58	9 m. 12.4 s.

WOMEN'S EVENTS

100 metres run	M. D'Souza (Bom.)	1954 ..	12·3 s.
200 metres run	M. D'Souza (Bom.)	1956 ..	25.7 s.

Running High Jump	Miss U. Lyons (Punjab)	'40	**4 ft. 11⅜ in.**
80 metres hurdles ..	M. Lila Rao (Bom.)	'58	11.5 s.
High Jump ..	Vasant Kumari (Kerala)	'57	5 ft. 1 in.
Discuss Throw ..	C. O'Connel (Mysore)	'58	114 ft.
Javelin Throw ..	E Davenport (Rajasthan)	'58	129 ft. 7¾ in.
Broad Jump .	C Brown (Bom)	'54	17 ft. 5 in.
Shot Put	E. Davenport (Bihar)	'57	35 ft. 7¼ in

INDIAN SWIMMING RECORDS

MEN

Free Style ..			
100 m. ..	S. Bazaz (Bom.)	1955	1 m. 2·7 s.
200 m. ..	S. Bazaz (Bom.)	1955	2 m. 24 s.
400 m. ..	S. Bajaj (Bom)	1956	5 m. 13.3 s.
1500 m. ..	L/Nk Ram Singh (Services)	1956	21 m. 4 5 s.
Back Stroke	S. Bazaz (Bom.)	1955	
100 m. ..	Rupchand (Services)	1956	1 m. 15·2 s.
200 m. ..	Chandra Sekharan (Services)	1955	2 m. 44·4 s.
Breast Stroke			
100 m. ..	Udai Pratap Singh (Services)	1956	1 m. 22·2 s.
200 m. ..	Udai Pratap Singh (Services)	1956	2 m. 59·7 s.
Butterfly			
100 m. ..	S. G. Lathi (Bom.)	1955	1 m. 14·7 s.
200 m. ..	S. G. Lathi (Bom.)	1955	2 m. 55·3 s.
Relay			
4×100 m. .. Free Style	Bom. Team	1955	4 m. 26·5 s.
4×200 do ..	Services Team	1955	10 m. 11·4 s.

WOMEN

100 m. Breast Stroke	Dolly Nazir (Bom.)	1950 ..	**1 m. 38 s.**
100 m. Free Style ..	P. Ballantyne (Bom)	1947 ..	1 m 18·6 s
100 m. Back Stroke ..	Sandhya Chandra (Bengal)	..	1 m. 29.5 s.
200 m. Free Style ..	Dolly Nazir (Bom.)	1956	3 m. 1·98 s.
400 m. Free Style ..	Dolly Nazir (Bom.)	1956	6 m. 13·6 s.
200 m. Breast Stroke	Dolly Nazir (Bom.)	1955	3 m. 28 9 s.

CRICKET

Summary of Test Matches

England v. South Africa

First played 1888-89 ; England won 42 ; South Africa 17 . 30 matches drawn.

England v. New Zealand

First played 1929-30 ; England won 10 , matches drawn 16 and N Z. won 0.

England v. India

First played 1932 ; England won 10 ; India won 1 and 8 matches drawn.

England v. Australia

First played 1876 77 , England won 62 , Australia 70 and 41 matches drawn.

England v. West Indies

First played 1928 ; England won 14 , West Indies won 10 and 11 matches drawn.

England v Pakistan

First played 1954 ; England won 1 ; Pakistan won 1 and 2 matches drawn.

Australia v. South Africa

First played 1902-3 ; Australia won 27 , South Africa won 3 and 9 matches drawn.

Australia v. West Indies

First played 1930 31 , Australia won 11 , West Indies won 2 and 2 matches drawn.

Australia v. India

First played 1947-48 ; Australia won 6 , 2 matches drawn

Australia v. New Zealand

First played 1945-46 ; Australia won 1 , New Zealand won 0.

India v West Indies

First played 1948-49 ; West Indies won 2 and 8 matches drawn.

South Africa v. New Zealand

First played 1931-32 ; South Africa won 7 ; New Zealand 0 and 2 matches drawn.

West Indies v New Zealand

First played 1951-52 ; West Indies won 4, New Zealand won 1 and 1 match drawn.

India v. Pakistan

First played 1952 ; India won 2 ; Pakistan 1 ; Drawn. 7.

Pakistan v. New Zealand

First Played 1955 ; Pakistan won 2, New Zealand 0, Drawn 1

Test Match Records

First wicket Partnership—413 Mankad and P Roy India v New Zealand, Madras 1955 56

Highest Match Aggregates—1981 runs (35 wickets)—England vs South Africa at Durban, 1939.

Lowest Match Aggregates—234 runs (30 wickets)—Australia vs. South Africa, Melbourne, 1932.

Highest totals—903 (7 wkts. dec.) for England vs. Australia, Oval, 1938.

Lowest totals—26 for New Zealand v. England, Auckland 1955.

Highest Aggregate by a side in a match—1121 (19 wkts.)—England vs. West Indies, Kingston, 1930.

Lowest Aggregate by a side in a match—81 (20 wkts.) South Africa vs. Australia at Melbourne, 1931-32.

Most Hundreds—29, D. G. Bradman (Australia).

Highest Individual innings—365 (not out) G Sobers (West Indies) v. Pakistan, Kingston, 1958.

Most hundreds in a Test match—Seven; England vs. Australia at Nottingham, 1938 (Barnett 126, Paynter 216*, L. Hutton 100, D. Compton 102 (Eng.) S. McCabe 232, W. Brown 133, D. G. Bradman 144* (Australia).

7—Australia (5) v. West Indies (2), Kingston, 1955. For Australia (5).—N. Harvey 204, R. Archer 128, C McDonald 127, R. Benaud 121 and K. Miller 109. For West Indies (2)—Clyde Walcott 155 & 110.

Two separate hundreds in a Test match twice in one Series: C. Walcott (West Indies) v. Australia 1955 126 & 110 (2nd Test, Part of Spain) and 155 & 110 (5th Test, Kingston)

Most wickets in Test cricket (Bowling)- 221 in 47 matches—Alec Bedser (England).

Hundreds in consecutive innings—Five by Everton Weeks.

141 (vs. England, Kingston 1947-48).

128 (vs India, Delhi 1948 49)

194 (*vs.* India, Bombay 1948-49).

162 & 101 (*vs.* India, Calcutta 1948-49).

Longest Test Match—South Africa *v.* M. C. C. (1939), for 10 days.

Record Individual Scores—First-Class Matches

*452	D. G Bradman	1929-30	*343	P. A. Perrin ..	1904
*443	B B Nimbalkar	1948 49	341	G H Hirst ..	1905
437	W. H. Ponsford	1927-28	*340	D G Bradman ..	1928-29
429	W. H Ponsford	1922 23	338	W. W. Read ..	1888
424	A. C MacLaren	1895	*338	R C Blunt ..	1931-32
385	B. Sutcliffe ..	1952-53	337	Hanif Mohd.	1958
383	C. W Gregory ..	1906-07	*336	W. R Hammond	1932-33
369	D G Bradman ..	1935-36	339	W. H Ponsford ..	1927-28
*365	C Hill ..	1900-01	334	D. G. Bradman ..	1930
364	L Hutton .	1938	333	K S Duleep Sinji	1930
365	G Sobers	1958	332	W. H. Ashdown ..	1949
359	V. M Merchant	1943-44	331	J D. Robertson .	1949
*357	R. Abel ..	1899	325	H. L. Harvey ..	1925-26
357	D. G. Bradman	1935-36	325	C. L. Badcock ..	1935-36
355	B Sutcliffe ..	1949-50	325	A. Sandham ..	1929-30
352	W H Ponsford ..	1926-27	324	J. B. Stollmeyer ..	1946-47
345	C G Macartnay	1921	322	E Paynter ..	1937
*344	G Headley ..	1931-32	321	W. L. Murdock ..	1881-82
344	W. G. Grace ..	1876			

*Signifies not out.

World Cricket Records—First Class

Highest team score (1st class)—1,107 Victoria v. New South Wales (Australia), 1926-27.

Highest Individual Score—452 (not out) D. G. Bradman, 1929-30.

First Wicket Partnership—555 Holmes and Sutcliffe, Yorkshire vs. Essex, 1932.

Second Wicket Partnership—455 by B. B. Nimbalkar and K. V Bhandarkar, Maharashtra v. Western India States, 1948-49.

Highest Partnership for any wicket—577 V. S. Hazare (254*) and Gul Mohammed (319), Baroda v. Holkar, 1946-47, (4th wicket).

Aggregates J. B. Hobbs—61,237 ; W. G. Grace—54,896.

Highest Aggregate—2,376 Bombay 651 and 714 for 6 Dec. v. Maharashtra.

Most Centuries in an innings—Six individual centuries by Holkar v. Mysore in Ranji Trophy, 1944-45.

MILE RUNNERS UNDER FOUR MINUTES

Roger Bannister (Eng.) 1954	3 : 59.4
John Landy (Aus.) 1954	3 : 58.0
Roger Bannister (Eng.) 1954	3 : 58.8
John Landy (Aus.) 1954	3 : 59.6
L. Tabori (Hungary) '55	3 : 59.0
C. Chataway (Eng.) '55	3 : 59.8
Brian Hewson (Eng.) '55	3 : 59.8
John Landy (Eng.) '56	3 : 58.6
John Landy (Eng.) '56	3 : 58.6
J. Bailey (Aus.) '56	3 : 58.6
John Landy (Eng.) '56	3 : 58.7
Ron Delany (Eire) '56	3 : 59.0
Gunner Nielsen (Den.) '56	3 : 59.1
D. Ibbotson (Eng.) '56	3 : 59.4
J. Rozsavolgyi (Hungary) 1956	3 59.0
M. Lincoln (Aus.) '57	3 59.0
Don Bowden (U.S.) '57	3 58.7
D. Ibbotson (Eng.) '57	3 58.4
Dan Waern (Swe.) '57	3 59.3
S. Jungwirth (Yugoslavia) 1957	3 59.1
Ken Wood (Eng.) '57	3 59.3
Dan Waern (Swe.) '57	3 : 59.3
D. Ibbotson (Eng.) '57	3 : 58.7
R. Vuorisalo (Fin.) '57	3 : 59.1
Dan Waern (Swe.) '57	3 : 59.5
Dan Waern (Swe.) '57	3 : 58.5
Roger Moens (Bel.) '57	3 : 58.9
D. Ibbotson (Eng.) '57	3 : 57.2
Herb Elliot (Aus.) '58,	3 : 54.5

WORLD TRACT AND FIELD RECORDS

MEN

Running

100 yds.	9.3 s.	M. E. Paton (U.S.) '48 Hector Hogan (Aus.) '54 J. Golliday (U.S.) '55 L. King (U.S.) '56 Dave Sim (U.S.) '56
220 yd.	20 s.	Dave Sim (U.S.) '56
440 yd.	45.85	Jim Lea (U.S.) '56
1 m.	3 m. 54.5	Herb Elliot (Aus.) '58
2 m.	8 m. 33.4 s.	S. Iharos (Hungary) '55
3 m.	13 m. 14.2 s	do do '53

6 m.	27 m. 43 8 s.	do do '56
10 m.	48 m. 12 s.	E. Zatopek (C'slovakia) '51
15 m.	1 h 14 m 1 s.	do do '55
1 h.	12 m. 809 yd.	do do '51
100 metres	10.1 s.	W. Williams (U S) '56 Ira Murchison (U.S.) '56
200 metres	20 s	David Sim (U S) '56
400 metres	45 2 s.	L. Jones (U S) '56
800 metres	1 m 46.7 s.	Roger Moens (Belgium) '55
1000 metres	2 m. 19 s.	A Boysen (Norway) '55 I Rozsavolgyi (Hungary) '55
2000 metres	5 m 2 2 s.	I. Rozsavolgyi (Hungary) '55
3,000 metres	7 m 52 8 s	Gordon Pirie (Eng) '56
5,000 metres	13 m 36 8 s.	do do '56
10,000 metres	28 m 30 4 s	V Kuts (U S S R) '56
20,000 metres	56 m 51 6 s	E Zatopek (C'slovakia) '51
25,000 metres	1 h 16 m 36 4 s.	do do '55
30,000 metres	1 h 35 m 3 6 s	A Viskari (Finland) '56
Walking		
3000 metres	11 m 51 8 s	W Hardma (Sweden) '45
10,000 metres	42 m 34 6 s	do do '45
20,000 metres	1 h 27 m 58 2 s.	Mikhail Lavrov (U S S R) '56
30,000 metres	2 h 20 m 40 2 s.	A Vedjakov (U S S R) '55
50,000 metres	4 h 21 m 7 s.	Ladislov Moc (C'slovakia) '56
1 h.	13 812 metres	J Mikaelson (Sweden) '45
2 h.	25 865 metre	A Vedjokov (U S S R) '55
Hurdles (10 hurdles)		
120 yd.	13 4 s	Jack Davis (U S) '56
220 yd.	22 2 s.	David Sime (U S) '56
110 metres	13 4 s	Jack Davis (U S) '56
200 metres	22 2 s.	David Sime (U S) '56
400 metres	49 5 s	Glen Davis (U S) '56
Field Events		
High Jump	7 ft ½ in.	Charles Dumas (U.S) '56
Running Broad Jump	26 ft 8¼ in.	Jesse Owens (U S) '35
Hop, Step, Jump	54 ft. 3¾ in.	A. F da Silva (Brazil) '55
Pole Vault	15 ft 7¼ in.	C. Warmerdam (U S) '42
Shot put	63 ft 1¾ in.	Parry O' Brien (U S) '56
Discus throw	194 ft 6 in.	F Gordien (U S) '53
Javelin throw	281 ft 2 in.	E Danilson (Norway) '56
Hammer throw	220 ft. 10 in.	M. Krivonosov (U.S S R) '56

WOMEN'S WORLD RECORDS

Running		
100 yd.	10.3 s.	Marlene Mathews (Aus.) '57
220 yd.	23.4 s.	do do '57
880 yd.	2 m. 6.6 s.	Nina Otkalenko (U.S.S.R.) '56
100 metres	11.3 s.	Shirley Hunty (Aus.) '55
200 metres	23.2 s.	Betty Cuthbert (Aus.) '56
400 metres	57 s.	Margaret Mathews (Aus.) '57
800 metres	2 m 5 s.	Nina Otkalenko (U.S.S.R.) '56
Field Events		
Broad Jump	20 ft. 9¾ in.	E. Damka-Kreskinska (Poland) '56
High Jump	5 ft. 6¼ in.	Mildred McDaniel (U.S.) '56
Discus throw	187 ft. 1½ in.	Nina Dumbadze (U.S.S.R.) '52
Javelin throw	188 ft. 4 in.	Anna Pozera (Aus.) '57
Shot put	54 ft. 11¾ in.	Galina Zybina (U.S.S.R.) '56

SWIMMING RECORDS

MEN

Free Style		
1000 metres	0 : 54 6	John Devitt (Aus.) '57
110 yd.	0 . 54.2	do do '57
800 metres	9 . 15.7	George Breen (U.S.) '56
880 yd.	9 19.2	do do '56
1500 metres	17 52.9	do do '56
Breast Stroke		
100 metres	1 . 11.6	C. Lieh-Yu (China) '57
Butterfly		
100 metres	1 . 01.3	T. Ishmoto (Japan) '57
Breast		
100 metres	1 : 02 2	David Thiele (Aus.) '56

WOMEN

Free Style		
100 metres	1 : 2.0	Dawn Fraser (Aus.) '56
220 yds.	2 . 19.1	Lorraine Crapp (Aus.) '56
440 yds.	4 : 48 6	do do '56
800 metres	10 . 30.9	do do '56
880 yds.	10 : 34.6	do do '56
1,500 metres	20 : 03.1	Jans Koster (Northerlands) '57
Breast Stroke		
200 metres	2 : 51.3	Ada den Haan (Netherlands) '57
220 yds.	2 : 52.5	do do '57
Butterfly		
100 metres	1 : 10.5	Atie Voorbij (Netherlands) '56

Back Stroke

100 metres	1	12.9	Judy Grenham (Eng.) '56
110 yds.	1	13.2	Greetje Kraan (Netherlands) '57
200 metres	2	38.5	Lenie de Nijs (Nethelands) '57
220 yds.	2	38 5.	do do '57

DAVIS CUP

(International Lawn Tennis; Men's Team Events—Started in 1900)

Winner and Points			*Winner and Points*			*Winner and Points*		
1933	Great Britain	3	1940-45	—*No Game*		1952	do	4
1934	do	4	1946	U S.	5	1953'	do	
1935	do	5	1947	U.S.	4	1954	U. S.	
1936	do	3	1948	U.S.	5	1955	Australia	5
1937	U.S.	4	1949	U.S.	4	1956	Australia	
1938	U.S.	3	1950	Australia	4	1957	Australia	5
1939	Australia	3	1951	do	3	1958	Australia	3

WIGHTMAN CUP (Women's Team Events)

(*Annual Competition by women lawn tennis players of Great Britain and U S.A.*—started in 1923)

1946 U.S.
1947 U.S.
1948 U.S.
1949 U.S.
1950 U S.
1951 U S
1952 U S.
1953 U S
1954 U S
1955 U S
1956 U.S
1957 U S
1958 England

WIMBLEDON TENNIS CHAMPIONSHIP

(*International lawn tennis tournament for individual championship*

Men's Singles

1946 Y. Petra
1947 J. A. Kramer
1948 R. Falkenburg
1949 R. Schroeder
1950 B. Patty
1951 R. Savitt
1952 F. A. Sedgeman
1953 E V. Seixas (U.S.)
1954 J. Drobny (Czech.)
1955 T. Trabert (U.S.)
1956 Lew Hoad (Aus.)
1957 Lew Hoad (Aus.)
1958 A Cooper (Aus.)

Women's Singles

1953 M. Connolly (U.S)
1955 Louise Brough (U.S.)
1954 M. Connolly (U.S.)
1956 Shirley Fry (U.S.).
1957 Althea Gibson (U.S.).
1958 do do

WORLD CHESS CHAMPIONS

1851-58—Adolph Anderson (Ger.)
1858-62—Paul Morphy (U.S.)
1862-66—Adolph Anderson (Ger.).
1866-94—Wilhelm Steinitz (Australia)
1894-1921—E. Lasker (Ger.)
1921-27—J. R. Capablanca (Cuba)
1927-35—A. A. Alekhine (Russia)
1935-37—Dr. M. Euwe (Holland)
1937-46—A. Alekhine (Russia)
1946-47—*Vacant.*
1948-56—M. Botwinnik (Russia)
1957—V. Smyslov (Russia)

WORLD BOXING CHAMPIONS

Heavy Weight (any weight)—
Floyd Patterson (U.S.)
Light Heavy Weight (175 lb.)—
Archie Moore (U.S.)
Middle Weight (160 lb.)—
Sugar Roy Robinson
Welter Weight (147 lb.)—
Carmen Basilio (U.S.)
Light Weight (135 lb.)—
Joe Browny
Feather Weight (126 lb.)—
Hogan Bassey (U.S.)
Bantam Weight (118 lb.)—
Raul Mascias
Fly Weight (112 lb.)—
P. Perez (Argentina)

MODERN HEAVY-WEIGHT CHAMPIONS

1882-92 John L. Sulivan
1892-97 James J. Corbett
1897-99 Robert Fitzsimmons
1899-1905 James J. Jeffries
1905-1906 Marvin Hart
1906-08 Tommy Burns
1908-15 Jack Johnson
1915-19 Jess Willard
1919-26 Jack Dempsey
1926-28 Gene Tunney
1928-30 *Vacant*
1930-32 Max Schmeling
1932-33 Jack Sharkey
1934-35 Max Baer
1935-37 Jim Braddock
1937-49 Joe Louis
1949-51 Ezzard Charles
1951-52 Joe Walcott
1952-55 Rocky Marciano
1956- Floyd Patterson

SPEED SKATING (ICE)

Men

	Time	
10,000 metres ..	16 : 32.6	H. Anderson (Norway) 1952
5,000 metres ..	7 : 45.6	Boris Shilkow (USSR, 1955)
All round ..	184.683 pts.	D. Sakunenko (USSR, 1955)
Women		
5,000 metres ..	6 : 01.6	R. Zhukowa (USSR, 1953)
All round ..	206.016 pts.	I. Artamonova (USSR, 1956)

WORLD CYCLING RECORDS

20 kilometres ..	J. Anquetil (France, 1956) ..	25 m. $59^{1}/_{5}$ s.
100 do ..	M. de Benedeth (Italy, 1942) ..	2 hrs. 20 m. $44^{4}/_{5}$ s.
1 hour ..	J. Anquetil (France, 1956) ..	28 m. 1,201 yds

WORLD FOOTBALL CUP

(Jules Rimet Cup)
(Played every fourth year—started in 1930)

1930—Uruguay
1934—Italy
1938—Italy
1950—Uruguay
1954—Germany
1958—Brazil

ASIAN FOOTBALL QUADRANGULAR TOURNAMENT

(India, Pakistan, Burma and Ceylon)

1952—India & Pakistan
(*Joint holders*)
1953—India
1954—India
1955—India.

THOMAS CUP

(International Badminton Championship)

1948-49—Malaya
1952—Malaya
1954-55—Malaya
1957-58—Indonesia

OLYMPIC HOCKEY CHAMPIONS

1908	Great Britain	1936	India
1920	Great Britain	1948	India
1928	India	1952	India
1932	India	1956	India

THIRD ASIAN GAMES—1958

MEN'S EVENTS

Track and Field

Metres	Time H.	M. S	Winner	Home
100		10.9	Abdul Khaliq	Pakistan
200		20.6*	Malikha Singh	India
400		47.0	Malikha Singh	India
800	1	52.1*	Yoshitaka Muroya	Japan
1,500	3	47.6*	Khaliq Mohmoud	Iran
5,000	14	[illegible]*	Osamu Inoue	Japan
10,000	30	48.4	Takashi Baba	Japan
HURDLES				
100		14.4*	G. Rasul	Pakistan
400		52.1*	Tsai Cheng Fu	China
RELAY				
400		41.4*	Philippines (Vista, Gomez, Subido Bantista)	
4×400	3	13.9*	Japan (Akaji, Ogushi, Kiyofumi, Muroza)	

---

* New Asian Games Record

MARATHON

	3 hrs. 32 m. s.*	Lee Chung Hoon	Korea

STEEPLECHASE

3000	9 0.3	Mubarak Shah	Pakistan
	7,101 Rts.	Yang Chuan Kuang	Taiwan

FIELD EVENTS

High Jump	6 ft 7¾ ins *	N Ethirvirasinghan	Ceylon
Pole Vault	13 ft. 9¼ ins *	Noriaki Yasuda	Japan
Long Jump	24 ft. 10 ins.*	B Shu Yong Joo	Korea
Hop Step Jump	51 ft 2¾ ins *	Mohinder Singh	India
Discus Throw	156 ft. 4½ ins *	Balkar Singh	India
Javelin Throw	227 ft 8¼ ins *	Mohammed Namaz	Pakistan
Shot Put	49 ft 4 ins *	Parduman Singh	India
Hammer Throw	200 ft 0¼ ins.*	M. Iqbal	Pakistan

WOMEN'S EVENTS

Metres	H	M S	Holder	Country
100		12 5†	Inocencia Solis	Philippines
200		25 9	Yuko Kobayashi	Japan

Hurdles

80		11 6*	Michiko Iwamoto Francisca Sanopal	Japan Phillippines

Relay

400		48 6*	Japan (Fukuyama, I[illegible], Yoda and Kobayashi)	

Field Events

High Jump.	58 metre *	Emilo Kamiya	Japan
Long Jump	18 ft 6 in	Visitacion Badana	Philippines
Shot Put	1[illegible]3 metres*	Seiko Obonai	Japan
Discus	157 ft 5½ ins	Hiroko Uchida	Japan
Javelin	47 [illegible] metres	Yoriko Shida	Japan

NEW OLYMPIC ATHLETIC RECORDS

The following is a list of the new Olympic athletic records set up during the 1956 Melbourne Olympic Games.

MEN

200 metres—20.6 sec. by Bob Morrow (U S.A.). Old Record—20.7 sec.

---

* New Asian Games Record † Asian Games Record equalled

800 metres—1 min. 47.7 sec. by T. Courtney (U.S.A.). Old record—1 min. 49.2 sec.

1500 metres—3 min. 41.2 sec. by R. Delaney (Ireland). Old record—3 min. 45.2 sec.

5000 metres—13 min. 39.6 sec. by Vladimir Kuc (Russia). Old record—14 min. 6 sec.

10,000 metres—28 min. 45.6 sec. by Vladimir Kuc (Russia). Old record—29 min. 17 sec.

High Jump—6 ft. 11¼ in. by C. Dumas (U.S.A.). Old record—6 ft. 8.32 in.

Hop, step and jump—53 ft. 7½ in. by A. F. da Silva (Brazil). Old record—53 ft. 2.59 in.

Putting the shot—60 ft. 11 in. by W. P. O'Brien (U.S.A.). Old record—57 ft. 1.43 in.

Pole vault—14 ft. 11½ in. by R. Richards (U.S.A.). Old record—14 ft. 11.14 in.

Discus—184 ft. 10½ in. by A. Oerter (U.S.A.). Old record—180 ft. 6.85 in.

Hammer throw—207 ft. 3½ in. by H. Connolly (U.S.A.). Old record—197 ft. 11.67 in.

Javelin—281 ft. 2¼ in. by Egil Daniellsen (Norway). Old record—242 ft. 0.79 in.

3,000 metres steeplechase—8 min. 41.2 sec. by C. Brasher (Britain). Old record—8 min. 45.4 sec.

110 metres hurdles—13.5 sec. by L. Calhoun (U.S.A.). Old record—13.7 sec.

400 metres hurdles—50.1 sec. by Glen Davis and E. S. Southern (both U.S.A.). Old record—50.8 sec.

4×100 metres relay—39.5 sec. by U.S.A. Old record—39.8 sec.

WOMEN

100 metres—11.4 sec. by Betty Cuthbert (Australia). Old record—11.5 sec.

High jump—5 ft. 9¼ in. by M. McDaniel (U.S.A.). Old record—5 ft. 6¼ in.

Broad jump—20 ft. 9¾ in. by E. Kizesinska (Russia). Old record—20 ft. 5.66 in.

Discus—176 ft. 1½ in. by O. Fikotova (Czechoslovakia). Old record—168 ft. 8½ in.

Putting the shot—54 ft. 5 in. by Tamara Tychkevitch (Russia). Old record—50 ft. 2.58 in.

Javelin—176 ft. 8½ in. by Idessa Iaounzem (Russia). Old record—165 ft. 7.05 in.

80 metres hurdles—10.7 sec. by Shirley Strickland de la Hunty (Australia). Old record—11.2 sec.

4×100 metres relay—44.5 sec. by Australia. Old record—45.9 sec.

SOME NOTABLE WORLD RECORDS

Water Speed Record—Donald Campbell (Eng.)—248 m.p.h. in speed boat '*BlueBird,*' 1958.

Motor Cycle Record—Wilhelm Herz (Ger.)—210.64 m.p.h. over a measured mile on Aug. 4, 1956.

Record Dive—George Wookey (England)—600 feet in a helmated flexible diving suit, 1956.

Deep-Sea Diving Record—Lt. Comdr. Georges Honot and engineer Lt. Willm of the French Navy reached a depth of 13,287 ft. or 2½ miles on Feb. 15, 1954 off the west coast of Africa in a bathyscaphe.

World's Fastest on land (motor)—John Cobb (England) 394,196 m.p.h. (1947); *24 hours*—Eyston (England), 3578·3 miles.

Automobile World Speed
(One mile per hour)

Year	*Speed*	
1898	39 24	C. Laubat.
1904	91.37	Henry Ford.
1910	131.724	B. Oldfield.
1919	149.875	Ralph D. Palma.
1935	301.13	Sir M. Campbell.
1947	394 196	John. R. Cobb

Miscellaneous Records

Golf Ball—176 ft. per second.

Tennis Ball—220 ft. in one second by W. T. Tilden II in 1931.

Ski Jumping—316 feet distance by A. Samuelstuen (Norway), 1951.

Rifle—2,880 miles per hour (*i.e.*, 4,100 ft. per second).

Sound—780 miles per hour.

Leaping—Frog 16 ft 10 in. by 'Lucky' (America).

Horse: 37 ft. by steeple chaser, Chandler, 1947 in England (Average is 23 and 27 ft.).

Tight Rope Walking—Allan Lundburg (Sweden) completed 27 hours 2 minutes on a tight rope with non-stop walk on 30-8-54.

Diving—Jack Brown, April 28, 1945 attained a depth of 550 ft.

Diving, highest—205 ft. 9 in. by Alex. Wickham (Solomon Islands).

Piano Marathon—Heinz Arntz (Germany) played piano for 424 hours at a stretch in 1955.

Mountain Climbing—29018 ft. highest known ascent on Mt. Everest by Sir Edmund Hillary and Sherpa Tenzing Norkey, 1952.

Rope Skipping—18,463 turns (no break) in 1 hour 41 minutes by Tom Morris (Australia).

Cricket Ball Throw—422 ft. by R. Pareival, Durham, England, 1884.

Railway World Speed Record—243 kilometres (about 152 miles) per hour on *electrified* Paris-Lyons line (Feb. 19-21, 1945).

AVIATION

Aeroplane Altitude Records

Height (ft.)		*Aviator*
41,795	1929	W. Neuenhofen (*Ger*).
43,166	1930	A. Soucek (*U.S.A.*)
43,976	1932	C. F. Unwins (*Eng.*).
44,819	1933	G. Lemoine (*France*).
47,352	1934	R Donati (*Italy*).
47,806	1935	V Kokkinaki (*U.S.S.R.*).
49,994	1936	S R D. Swain (*Eng.*).
53,937	1937	Fl. Lt. Adam (*Eng.*).
56,046	1938	Mario Pazzi (*Italy*).
59,445*	1948	J. Cunningham (Eng.)
79,494	1954	Major William Bridgeman (*U.S.A.*)
65,889*	1955	Walter F. Gibb (*Eng.*).

Endurance Flight Record

Hr.	*Min.*	*Year.*	*Aviator.*
150	40	1929	Carl Spaatz (*U.S.A.*)
246	43	1929	Mendell & Reinhart (*U.S.A.*)
555	41	1930	J. & K. Hunter (*U.S.A.*)
647	4	1930	Jackson & O'Brine (*U.S.A.*).
653	34	1935	Al & Fred Key (*U.S.A.*).
1,124	14		Jongeward & Woodhouse (*U.S.A.*).

World Air Records

Maximum Speed over a straight course—1,132.136 mph— L. P. Twiss (Eng.) March 10, 1956.

Maximum Speed over a closed circuit—728.114 mph—Robert O. Rahn (U.S.) Oct. 10, 1953.

Distance Airline— 11,235 6 miles, J D. Davis U.S N. E. P. Rankin (U.S.N., etc., Sept. 2—Oct. 1, 1946.

Distance, Closed Circuit—8,854.3 miles ; O. F. Lassiter & W. J. Valentine, U.S. Aug. 1—3, 1947.

Altitude—65,889 (*jet propelled*)—Walter F. Gibb (Eng.), Aug. 29, 1955.

FASTEST TRIPS ROUND THE WORLD

1924 (April 6—Sept. 28)—Six U.S. Army fliers first round the world—26,345 miles in 175 days. Total flying time 365 hrs. 7m.

1931 (June 23—July 1)—Wiley Post & Harold Gatty—15,128 miles in 3 days, 19 hrs. 8 m. 10 s.

* *Jet-propelled aircraft*

1933 (July 15-22)—Wiley Post's solo flight—15,596 miles in 7 days, 18 hrs. 49.5 m.
1938 (July 10-13)—Howard Hughes with a crew of 4—14,824 miles in 3 days, 19 hrs. 10 s. 8 m 10 s.
1947 (Apr. 12-16)—W. P. Odom (solo)—20,000 miles in 78 h. 55 m. 12 s.
1949 (Feb. 26—March 2)—James Gallagher & U.S. crew (First non-stop flight)—23,452 m. in 94 hrs. 1 min.
1957 (Jan. 16-18)—Three USAFB-52 strat fortresses First non-stop global flight by jet planes—24,325 m. in 45 hrs. 19 m.

BALLOON RECORDS

Altitude Height (ft.)	*Year*	*Balloonists.*
500	1783	Pilatre de Rozier (France).
51,793	1931	Auguste Piccard (Swiss).
61,237	1933	T. G. W. Settle & C. Fordney (U.S.).
72,394.8	1935	A. W. Stevens & Anderson (U.S.).
96,000	1957	J. W. Kittinger (U.S.).
202,000	1957	Major David Simons (U.S.).

Distance miles	*Year*	
27	1783	Charles & Robert (France).
1,120	1859	Johnwise.
1,896.8	1914	Hans Berliner.

Duration Hrs. m.	*Year*	
87	1913	H. Kaulen (Germany)

Gliders

Duration—Charles Atger (France), April 2-4, 1952—56 hrs. 15 m.
Distance, Straight Line—R. H. Johnson (U S.), 535.169 miles, Aug 5, 1951
Altitude—William S Ivans (U S.), Dec. 30, 1950 - 30, 100 ft

Parachute

Descent—Rene Michenaud (1932, France) jumped from an aeroplane at an altitude of 25,590 ft. in France
Delayed Parachute jump—Vlentina Seliverstova (Russia) jumped from 23,295 ft. and did not open her parachute until she had fallen 20,777 ft. (1951).

Women's Flight Records

Distance Air Line—V. Grisodoubova and P. Ossipenko, U.S.S.R., September 24-25, 1938—3,671 432 miles.
Altitude—Mlle Hilz (France)—46,948·725 ft. on June 23, 1936.
Speed—Jacqueline Auriol (France)—715.35 m.p.h. in turbojet fighter on May 31, 1955.

First Woman Trans-Atlantic Solo Flight—Amelia Earhart (U.S.A.), approximately in 15 hrs. on May 20-21, 1932.

Helicopter Records

Distance Airline—Army HZI helicopter in first transcontinental flight 2,610 m. in 37 hrs. on Aug. 24, 1956.

Altitude—Jean Boulet (France)—26,931 ft., 1955

Distance, closed circuit—H. L. Bush & W. C. Dysinger (U.S.A.)—1,199.078 m. Aug. 11, 1956.

Maximum Speed—Ry L. Andersson & R. S. Decker (U.S.A.)—162.743 m.p.h., Nov. 11, 1956.

Speed, closed course (1,00 k.m.)—C. E. Hargett & E. D. Hill (U.S.A.)—141,915 m.p.h., July 12, 1956.

Speed for 1,000 k.m. (closed circuit)—Capts. C. E. Hargett & E. D. Hill (U.S.A.)—132.633 m.p.h., July 12, 1956.

LABOUR IN INDIA

LABOUR REFORM IN INDIA—India Government's effort to afford protection to labour had a strange origin. Legislation prior to 1818 attempted merely to regulate conditions of labour so as to help the employers and to ensure that they had a docile labour force at their disposal. The Factory Acts of 1818 and 1891 were passed chiefly because of the anxiety caused to Lancashire by the growing cotton industry of Bombay.

For 20 years after 1891, there was no further advance. In 1911, new Factories Act was passed restricting the hours of work in textile factories to 12.

The period after World War I was an era of progressive labour legislation. The Trade Union movement was born and India's association with I.L.O. supplied a powerful urge in favour of humane condition in mines, factories and mills. In 1922 the Indian Factories Act was amended so as to embrace many more factories, and working hours were reduced to a maximum of 11 hours per day. The Mines Act was similarly amended in 1923 providing for limitation of hours to 60 per week above ground and to 24 per week below ground. It also prohibited employment in mines persons under 13 years of age. A Workman's Compensation Act providing for accidents sustained or disease contracted by workmen, was also passed in 1923. Government's anxiety to preserve industrial peace led also to the enactment of Indian Trade Union Act, 1926 as well as Trade Disputes Act, 1929.

The post-war depression and the resultant industrial unrest paved the way for the Government for taking a deeper interest in labour problem. A *Royal Commission on Labour* in India was appointed in 1929 under the presidency of Rt. Hon. J. H. Whitley.

Between 1931 and the advent of provincial autonomy in 1937, the

Central Government effected a number of reforms revising or enacting legislation regarding factory works, miners, plantation labour, railway-men, maritime workers, dock labourers, etc., in the light of the recommendations of Royal Commission on Labour. Perhaps the most advanced social legislation of this period was the enactment of the *Payment of Wages Act* in 1936.

Quickened interest in labour reform was shown by new autonomous Provincial Governments which came into being in 1937 and which instituted a number of enquiries and enacted a series of legislative measures for amelioration of the working classes. But when the Congress Governments resigned in 1939, there was an end to this progress in the provinces. War years 1939—45 were a remarkable expansion of Indian industries and unparalled rise in employment. At the same time, industrial relations were subjected to increasing strain. There were numerous struggles in respect of wages, dearness allowance, bonus and sharing of war profits. Direct action was resorted to by workers all over the country. Inflation and scarcity of foodstuffs, cloth and other consumer goods, the bleak prospect of unemployment owing to demobilization and retrenchment helped to strain the feelings between employers and employed. Added to these was the new-born political consciousness among the workers.

With the advent of independence, the labour unrest was greatly intensified and the National Government began to overhaul the entire machinery of labour, so as to stabilize industrial tranquility. The Government's statement on industrial policy made in Parliament on April 8, 1948, recognised "the proper role of labour in industry and the need to secure for labour the wages and working conditions." It urged that "Labour for its part must give equal recognition to its duty in contributing to the increase in the national income without which a permanent rise in the standard of living cannot be achieved."

LABOUR LAWS

The Labour Legislation can be divided into following heads :—(1) *Factories*, (2) *Mines*, (3) *Plantations*, (4) *Transport*, (5) *Legislation relating to workers in shops and commercial establishments*, (6) *Safety and Welfare*, (7) *Wages*, (8) *Social Security*, (9) *Industrial relations and Disputes*, (10) *Miscellaneous*.

1. Factories—All the Factories Acts from 1881 to 1947 have been annulled and a new act called the Indian Factories Act of 1948 has been passed. The main provisions of the Act are as follows :—(1) It covers all industrial establishments employing 10 or more workers where power is used and 20 or more workers where power is not used. (2) It does away with the distinction between seasonal and perennial factories. (3) Elaborate provisions have now been made which specify in clear and precise terms the requirements in regard to health, safety and welfare. (4) The minimum age for employment of children has been fixed at 14 and the upper age-limits of the adolescents have been raised from 17 to 18. (5) The hours of works for adults have been fixed at 48 hours a week and

9 hours a day. The spreadover has been fixed at 10½ hours in a day. (6) For children and adolescents, the hours of work are 4½ hours a day and the spreadover has been fixed at 5 hours. (7) No adult worker is allowed to work more than 5 hours unless he has had an interval for rest of at least half-an-hour. (8) Employment of children and women at night is prohibited. (9) For overtime work the Act provides that employees shall be paid twice their normal rates of wages. (10) Besides weekly holidays, every worker is entitled to leave with wages after 12 months' continuous service at the following rate—Adult : one day for every 20 days of work, subject to a minimum of 10 days. Children : one day for every 15 days of work, subject to a minimum of 14 days.

In 1952 Indian Mines Act has been passed which consolidates the previous law and brings it in tune with the provisions of the Factories Act of 1948. (*a*) The Act applies to all mines. A mine has been defined as "any excavation where operation for the purpose of searching for or obtaining minerals has been or is being carried on." (*b*) Hours of all.

2. **Mines**—In 1952 Indian Mines Act was passed which consolidated the previous law and brought it in tune with the provisions of the Factories Act of 1948. (*a*) The Act applies to all mines. A mine has been defined as "any excavation where operation for the purpose of searching for or obtaining minerals has been or is being carried on." (*b*) Hours of all employees, both surface workers and underground workers are fixed at 48, and no worker is allowed to work more than nine hours a day on the surface or eight hours a day below the surface. (*c*) No person employed in a mine is allowed to work more than six days a week. (*d*) The Act prohibits the employment of children below the age of 15 and no person below the age of 17 shall be allowed to work underground unless he has been certified to be medically fit. The other principal enactments in this sphere since 1934 are : *Coal Mines Safety (Stowing) Act, 1939 ; Mines Maternity Benefit Act, 1941 ; Mica Mines Labour Welfare Fund Act, 1946 ; Coal Mines Labour Welfare Fund Act, 1947 and Coal Mines Provident Fund and Bonus Schemes Act, 1948. Coalmines Bonus Scheme* came into operation in 1947. Under this Scheme the worker, by virtue of a minimum qualifying rate of attendence, is entitled to receive a third of his basic earnings as bonus.

3. **Plantations** The important legislation regarding plantation labour is the *Tea Districts Emigrant Labour Act XXI of* 1932. The Act deals mainly with the recruitment of workers for the gardens in Assam. The main provisions are—(1) Every emigrant labourer and his family have a right of repatriation at the cost of the employer after the expiry of three years. (2) Provincial Governments are empowered to declare any area to be controlled emigration area. (3) Appointment of a Controller of Emigrant Labour. (4) No children below 16 years can proceed to Assam unless accompanied by parents or relatives or in the case of married women, unless accompanied by their husbands. *Plantation Labour Act of* 1951 which applies to all tea, coffee, rubber or cinchona plantations on which 30 or more persons are employed, fixes a 54-hour week for adults and 40-hours week for

adolescents and children and prohibits employment of children under 12 and night work for women and children between 7 p.m. and 6 a.m. It also provides for regulations relating to matters like leave facilities, health and welfare, housing accommodation, sickness and maternity benefits.

4. **Transport**—Prior to 1937, legislation relating to conditions of work in communications was limited to railways and port services. These related mainly to amendments to the Indian Railways Act 1890, to implement the Hour of Work (Industry) Convention (No. 1) 1919, amendments to the Indian Ports Act, 1908, to prohibit the employment of children in handling goods in ports and the enactment of Indian Dock Labourers Act, 1934, regulating safety in docks and to implement the Protection Against Accidents (Dockers) Convention (Revised) (No. 32) 1932. Since 1937 both the scope and the content of the protective labour legislation in this sphere have been greatly extended. The more important of the measures adopted are the raising of the minimum age for employment of children in railways and docks from 12 to 15 years, the progressive extension of the Hours of Employment Regulations to all railways, the regulations adopted to promote the continuous employment of dock workers and elimination, as far as practicable, of the evils of casual employment, and the extension of the principle of statutory regulation of working conditions to workers engaged in motor transport.

5. **Legislation Relating to Workers in Shops and Commercial Establishments**—Granting of protection to workers in shops and commercial establishments was first taken by the Government of Bombay which passed an Act in 1939. Other States such as Bengal and Punjab followed suit and passed similar Acts in 1940. The Punjab Act was extended to Delhi in 1942. During 1947 Acts on the subject were passed in three more provinces, namely, Madhya Pradesh, Uttar Pradesh and Madras. In Assam a Shops and Establishments Act was passed in 1948. Apart from these provincial Acts there is a Central Act known as *Weekly Holidays Act,* 1942. This Act is permissive in character and provides for the grant of weekly holidays to shopworkers in those provinces which have no legislation on the subject. All the above Acts fix the daily and weekly hours of work. The Acts also fix the holidays and leave. With the exception of the Bengal Act, all other Acts have placed restrictions on the employment of children and have made special provisions relating to hours of work, rest intervals, etc., of young persons. All the Acts contain provisions for regulating the payment of wages. *The Working Journalists (Conditions of Service) and Miscellaneous Provisions Act* of 1955 contains provisions pertaining to the hours of work, weekly day of rest and leave with pay.

6. **Safety and Welfare**—(1) *In Factories Act*, 1948, *the Mines Act*, 1952 and the *Plantations Labour Act,* 1951 provisions have been made for canteens, creches, rest shelters, washing facilities, medical aid for the appointment of labour officers. (2) *Indian Dock Labourer's Act*, 1934 came into force in 1948. The Act is concerned with the protection against accidents of workers

employed in loading and unloading of ships. (3) *The Coal Mines Safety (Stowing) Act of* 1939 provides for the creation of a fund to assist stowing measures. According to the Act the expenses of the Fund are to be met by an excise duty and its administration is entrusted to a Coal Mines Stowing Board. The Act empowers Chief Inspector and Inspectors of Mines to require the owner, agent or manager to take necessary protective measures. (4) For permanent financing the welfare schemes, several Acts, such as, *Coal Mines Labour Welfare Fund Act*, 1947, *Mica Mines Labour Welfare Fund Act*, 1946, *U.P. Sugar and Power Alcohol Industries Welfare Fund Act*, 1953 and *Bombay Labour Welfare Fund*, 1953 have been passed. *Coal Mines Labour Welfare Fund Act*, 1947 provides for the setting up of a Fund to be called the *Coal Mines Labour Housing and General Welfare Fund* which will maintain two accounts, namely, the Housing Account and General Welfare Account. The Fund maintains two central hospitals—one at Dhanbad and the other at Asansol—four regional hospitals and several dispensaries. The Fund also runs adult education centres, women's welfare centres, etc. (5) *Mica Mines Labour Welfare Fund*. 1946 provides for the raising of a Fund by the levy of an *ad valorem customs duty* on all mica exported from the Indian Dominion for the construction of hospitals, mobile medical units, maternity and child welfare centres, the provision for technical education for miners' children, etc., etc. The fund provides medical, educational and recreational facilities for mica mine workers. A 50-bed central hospital has been functioning at Karner (Bihar) since 1954. The Fund also maintains several primary schools. Under the *Plantations Labour Act*, 1951, all plantations are required to provide housing accommodation to their resident workers and families and to maintain hospitals and dispensaries.

Besides above, Labour Welfare Funds were created on a voluntary basis in 1946 for financing welfare activities for the benefit of workers. There are at present 200 such funds in the country. The State Governments are running a number of Welfare Centres.

7. Wages—The first Act is the *Payment of Wages Act* of 1936. This Act seeks only to ensure the regular payment of wages and to prevent the exploitation of the wages earner by arbitrary deductions and fines; it does little to help the worker with no bargaining power to secure a living wage. This need has been filled by the *Minimum Wages Act*.

The wages of the labourers are regulated by the *Payment of Wages Act*, 1936 and the *Minimum Wages Act*, 1948. The first Act applies to persons employed in any factory and in any railway in respect of wages and salaries which average below Rs. 400 per month. The provisions of the Act have been extended to mines, plantations, certain classes of State transport and construction industry. The Minimum Wages Act empowers the Government to fix minimum rates of wages to employees in industries specified in the Schedule of the Act. According to an Amendment of 1957, all categories of workers including those working in agriculture are required to be brought under this Act by 1957.

Coal Mines Bonus Schemes—Bonus schemes, framed under Section (5) of the *Coal Mines Provident Fund and Bonus Schemes Act*, 1948, are in operation in the coal mines of West Bengal, Bihar, M. P., Bombay, Orissa, Andhra Pradesh, Rajasthan and Assam, which entitle a worker to receive a third of his basic earnings as bonus by virtue of a minimum qualifying attendance during a quarter.

Standardisation of Wages—Wage Boards have been set up in Bombay under the *Bombay Industrial Relations Act*, 1946 to standardise wages.

8. Social Security—The important Social Security Acts are *Workmen's Compensation Act*, 1923. *Employees' Provident Fund Act*, 1952, *Coal-Mines Provident and Bonus Sshemes Act*, 1948, *Mines Maternity Benifits Act*, 1941 and *Employees' State Insurance Act*, 1948. The *Workmen's Compensation Act* provides for the payment of compensation for injuries received during employment, occupational diseases and deaths resulting from such injuries and diseases. Employees earning up to Rs. 400 are covered by the Act.

With a view to providing long-term security through establishment of compulsory provident funds for industrial workers, *Employees' Provident Fund Act* of 1952 was passed which provides for the compulsory provident fund for employees in 30 industries, employing 50 or more workers and all workers with monthly earnings of Rs. 300 or less are required to make a minimum contribution of 6¼ p.c. of their income.

Coal Mines Provident Fund and Bonus Schemes Act of 1948 provides for the compulsory provident fund scheme for colliery workers. Under these Schemes the workers are required to contribute to the Fund about 6¼ p.c. of their basic wages and dearness allowance inclusive of food concessions in cash or kind. A similar amount is contributed by the employer. This scheme is in operation in the coal mines of West Bengal, Bihar, Madhya Pradesh, Orissa, Andhra Pradesh, Bombay and Assam.

The only Central Act regarding maternity welfare is the *Mines Maternity Benefit Act* of 1941. It applies to women employed in mines covered by the Indian Mines Act.

The *Maternity Benefit Acts* have been passed in almost all the States. The main principles in all Maternity Benefit legislations are the same—provision for the payment of a cash benefit to women for specified periods before and after childbirth, a compulsory period of rest after delivery and also before delivery if notice is given. All Acts specify a qualifying period for the earning of the benefit, this varies from six months to a year. There are three Central Acts regarding maternity benefits, namely, E. S. I. Act 1948, Mines Maternity Benefit Act and Plantations Labour Act which also regulates payment of maternity benefits.

The most important of social security acts is the *Employees' State Insurance Act* of 1948 which provides for the compulsory insurance of a specified class of wage-earners against the risks of sickness, maternity and employment injury. The Act applies to all perennial factories using power and employing 20 or more persons. It covers labourers employed directly or indirectly and also clerical staff;

it does not apply to a person whose total remuneration exceeds Rs. 400 per month. It excludes armed forces personnel.

The scheme is administered by the Employees' State Insurance Corporation consisting of Government representatives, employees and workers, the medical profession and the Central Legislature. A Medical Benefit Council, consisting of 28 members, advises the Corporation on medical benefits. The executive head of the Corporation is a Director-General who is assisted by four officers. He functions through a net work of regional and local offices.

Finance—Every employer and worker is required to make, for each week during the whole or part of which the worker is employed, weekly contributions to the Fund according to the scale prescribed in the Act; the weekly contribution (employers' and employees') rising from seven annas in the case of employees whose average daily wages are below one rupee to three rupees twelve annas in the case of those whose daily average wages are eight rupees and above. Employees whose average daily wages are below one rupee are, however, exempted from contributing to the Fund out of their wages, the entire contribution in their case being recoverable from employers.

The benefits provided under the Act are—(1) Sickness Benefit, (2) Maternity Benefit, (3) Disablement Benefit, (4) Dependents' Benefit and (5) Medical Benefit.

The scheme is in operation in Delhi, Calcutta, Howrah, and also in 9 industrial centres of Andhra Pradesh, 4 in Bombay, 5 in Kerala, 5 in Madhya Pradesh, 5 in Madras, 7 in Punjab, 6 in Rajasthan and 4 in Uttar Pradesh. At present the scheme covers more than 11 lakh workers.

9. **Industrial Relations and Industrial Disputes**—In a democratic country, the workers have the right to strike work if they do not receive wages which they consider fair or adequate; similar, employers have the right to declare a lock-out if they are not satisfied with the work of the labour. But the Government cannot be indifferent to the manner in which these rights are exercised. Since industrial peace is vital for economic progress, there are specific laws to deal with employer-worker disputes. These are governed by the *Industrial Disputes Act of* 1947 and amended in subsequent years. The Act provides for different kinds of machinery to deal with different situations. There are, for instance, *Works Committees* composed of representatives of employers and workers to remove day-to-day differences by mutual discussion. Then there are *Conciliation Officers* and *Conciliation Boards* to bring about a settlement between the parties, if a dispute has arisen. But if their efforts fail, there is provision for compulsory arbitration.

The Act specifies three types of tribunals: *Labour Courts, Industrial Tribunals* and *National Tribunals*. The Labour Courts have jurisdiction to adjudicate upon disputes relating to such matters as the propriety or legality of an order passed by an employer, the discharge or dismissal of employees and the legality or otherwise of a strike or lock-out. An Industrial Tribunal will adjudicate on disputes concerning wages, hours of work, bonus and retrenchment. A

National Tribunal will deal with matters which, in the opinion of the Central Government, involve questions of national importance or which are of such a nature that establishments in more than one State are likely to be interested in or affected by the disputes.

Where an existing or apprehended dispute has been referred to any of the bodies enumerated above, the Central or the State Government can, by order, prohibit the start or continuance of any strike or lock-out arising from such dispute. If persisted in, such strike or lock-out will be illegal.

A provision has been made in the Industrial Disputes Act for voluntary reference of disputes to arbitration by the parties themselves by written agreement and for enforcement of voluntary agreements reached between the parties.

10. **Miscellaneous.**—(1) *The Children (Pledging of Labour) Act II of* 1933 lays down that any agreement to pledge the labour of a child below fifteen years by the parent in return of any payment or benefit will be null and void and the parent is liable to be fined upto Rs 50 and the employer upto Rs. 200. (2) *The Employment of Children Act XXVI of* 1938 prohibits the employment of children below the age of 15 in any occupation connected with the transport of passengers, goods or mails by railway or in any occupation involving the handling of goods within the limits of any port regulated by the Indian Ports Act, 1908. No child who has not completed his 12th year can be employed in any of the scheduled occupations, i.e., bidi making, carpet making, cement manufacture, cloth printing, dyeing and weaving, manufacture of matches, explosives and fire-works, mica cutting and splitting, shellac manufacture, soap manufacture, tanning and wool cleaning. (3) The paucity of well co-ordinated labour statistics in India has been the subject of adverse comment for a long time. So the *Industrial Statistics Act of* 1942 was passed. The Act empowers the State Governments to collect statistics on (*a*) any matter relating to factories and (*b*) price of commodities, attendance, living conditions, indebtedness, rents of dwelling houses, wages and other earning and provident and other fund benefits and amenities, hours of work, employment and unemployment, industrial and labour disputes. The Act empowers the Statistics Authority to call for required returns and examine the relevant records, etc., and penalties have been provided for non submission. (4) *Legislation relating to indebtedness* has been enacted from time to time to deal with problems incidental to the indebtedness of industrial workers. The prominent of these are as follows—(*a*) C. P. Code of 1908 was amended in 1937 to provide for the exemption of attachments of salaries of all workers getting less than Rs 100 per month and in the case of Government employees the first Rs 100 and the moity of the remainder. It also limits the period of continuous attachment and provides that if a worker's salary has been attached for a period of 24 months, it should remain immune from liability of further attachment for a period of one year. (*b*) C. P. Code of 1908 was again amended in 1936 to prevent imprisonment of debtors. (*c*) Punjab Government has an Act known as *Punjab Relief of Indebtedness Act* of 1936. (*d*) C. P.

Government passed an Act known as the *Adjustment and Liquidation of Industrial Workers' Debt Act of* 1936. (e) Bengal Government passed an Act known as *Bengal Workmen's Protection Act of* 1934 which provides that any person loitering at or near any factory, workshop, etc., with a view to recovering debts from persons employed would be liable to fine or imprisonment. (*f*) M. P. Government passed an Act called *C. P. Protection of Debtor's Act*, which is more or less on the lines of Bengal Act. (*g*) Madras Government passed a similar legislation in 1941. (*h*) *Bihar Workmen's Protection Act* was passed in 1918 to protect certain classes of workmen from the molestation and intimidation by their creditors.

LABOUR ADMINISTRATION

The administration of labour laws is a divided responsibility. The Central Government, through its various offices, administers labour laws applying to mines, railways and other Central undertakings. The rest of the labour laws are administered by the State Governments through their own organisations.

Under the Indian Constitution, the following subjects may be legislated concurrently by the Central and State legislatures—(1) Trade Union, industrial and labour disputes, (2) Social Security and Social Insurance, employment and unemployment, (3) Welfare of labour including conditions of work, provident funds, employers' liability, workmen's compensation, invalidity and old age pensions, maternity benefits, (4) Vocational and Technical Training of labour, (5) Relief and rehabilitation of refugees.

The following subjects fall exclusively under the jurisdiction of the Union and the States.

Union List—(1) Regulation of labour and safety in mines and oilfields, (2) Industrial disputes concerning Union employees.

State List—Relief of disabled and unemployable.

Ministry of Labour and Employment—The activities of the Government of India regarding labour is controlled by the *Ministry of Labour and Employment.* The Ministry deals with the following subjects—(*i*) Labour Welfare (*ii*) Industrial and Labour Disputes (*iii*) Factory Labour (*iv*) Unemployment Insurance and Health Insurance, etc., (*v*) Labour employed in Railways, Major ports, mines and oilfields (*vi*) Resettlement of demobilised soldiers and discharged war-workers (*vii*) Participation in the International Labour Conference and work connected therewith.

As regards subjects (i) to (iv), the Ministry is only responsible for laying down the general policy of the whole of India, while the implementation of the policy relating to these subjects is entirely the responsibility of the State Governments concerned, though the Central Government has power to exercise control and give directions.

The following are the Attached Offices of the Ministry.

(1) *Office of the Director-General, Employees' State Insurance Corporation, New Delhi* is a quasi-government institution to administer the Employees' State Insurance Act. It was network of regional offices throughout the country.

(2) *Office of Director, Labour Bureau, Simla*—The Bureau was set up in October, 1946 and has been responsible for (1) collection of labour statistics, (2) maintenance of cost of living index numbers, (3) keeping up-to-date the factual data relating to working conditions collected by the Labour Investigation Committee, (4) conducting research into specific problems with a view to furnishing data required for the formation of policy, (5) editing the monthly *Indian Labour Gazette*, (6) compiling *Labour Code* of various legislative enactments and the statutory rules thereunder and a *Labour Year Book*.

(3) *Office of the Directorate-General of Resettlement and Employment* The office was set up in 1945 to assist the demobilised personnel in their resettlement in civil life from the army. After some time the scope and activities of this office were extended to various other categories.

(4) *Office of the Chief Labour Commissioner, New Delhi*—The organisation deals with (1) conciliation, (2) examination of welfare measures, and advice to the employees and Government in connection therewith, (3) operation of labour laws to the extent of Central responsibility. (4) to organise and set up canteens in all Government undertakings, besides offering advice to State Governments, States and Administrations. There are six regional offices under the control of the Chief Labour Commissioner.

(5) *Office of the Coal Mines Welfare Commissioner, Dhanbad.*—The Commissioner deals with (*i*) the administration of Coal Mines Labour Welfare Fund Act, 1947 and (*ii*) the administration of the Mica Mines Labour Fund Act, 1946.

(6) *Office of the Chief Inspector of Mines, Dhanbad*—The activities of this Department are (*i*) enforcement of the Indian Mines Act, (*ii*) inspection of mines, (*iii*) investigation of accidents, (*iv*) inspection of electrical installations and machinery, (*v*) technical advice to mine owners, (*vi*) prosecutions, (*vii*) collection of statistics and (*viii*) enforcement of the Mines Maternity Benefit Act, 1941.

(7) *Office of the Chief Adviser of Factories, New Delhi*—This office deals with (*a*) Training of Factory Inspectors and Safety Officers (*b*) Industrial health, survey of toxic hazards (*c*) Environmental problems in factories (*d*) studies relating to productivity and work methods (*e*) Housing of industrial labour and administration of safety measures. (*f*) Health and Welfare. Schemes under the Dock Workers (Regulation of Employment) Act (*g*) Assistance in all matters relating to construction, design and lay-out of factories (*h*) matters relating to the working conditions such as lighting, ventilation, control of dust and fumes, accident prevention and other safety precautions, welfare, amenities (*i*) collection of up-to-date information in respect of safety, health and welfare of industrial workers in order to dessiminate such information in the form of brochures, pamphlets, posters, charts, etc.

(8) *Office of the Controller of Emigrants Labour, Shillong*—The office deals with (*a*) interpretation of the Tea Districts Emigrant Labour Act, 1932 and the Rules, (*b*) recruitment, repatriation of labour and inspection of tea gardens and depots, (*c*) compensation

cases relating to persons belonging to provincial Civil Labour units and State Labour units who worked on Defence projects.

(9) *Offices of the Welfare Commissioners, Mica Mines Labour Welfare Fund,* Dhanbad and Nellore.

(10) *Office of the Coal Mines Provident Fund Commissioner, Dhanbad*—The organisation was set up in 1948 for (*a*) administration of Coal Mines Bonus Scheme, (*b*) administration of Coal Mines Provident Fund Scheme which has been formed under Coal Mines Provident Fund and Bonus Schemes Act, 1948.

(11) *Office of the Central Provident Fund Commissioner, New Delhi* is responsible for the collection of amounts due to the Fund from employers and the payment of claims due to workers.

TRADE UNIONISM IN INDIA

The passing of the Indian Trade Union Act of 1926 (also amended in 1947), conferred a legal and corporate status on registered trade unions and granted them certain immunities in regard to trade disputes. The Act makes provision for three matters :—(1) conditions governing the registration of trade unions, (2) the obligations to which a trade union is subject after registration and (3) the rights and privileges accorded to registered unions. The act also allowed the funds of the registered unions to be spent for the conduct of trade disputes and for the provision of benefits to its members.

Under the Trade Unions Act of 1926, the registered trade unions are required to submit annual returns to the Registrars of Trade Unions. It is the responsibility of the Registrar of Trade Unions in the State to scrutinise these returns and to prepare a report thereon.

There are at present four Central all-India Trade Union organisations in India : *The Indian National Trade Union Congress, the All India Trade Union Congress, the Hind Mazdoor Sabha and the United Trade Union Congress.* Though the general objective of these four organisations is the same, namely, to promote the economic, political, social and cultural interests of workers, they differ in regard to certain fundamental principles based on political attitudes. I. N. T. U. C. which was founded in May 1947, urges the placing of industry under national ownership and control in a suitable form and the securing of increasing association of workers in the administration of industry and their full participation in its control. However, it does not wish to adopt radical methods for achieving its objectives and believes in bringing about the change gradually, through democratic and peaceful means. Hind Mazdoor Sabha founded in 1948 stands for the establishment of a democratic socialist society. To achieve its objects, the H. M. S. is prepared to adopt all legitimate, peaceful and democratic methods. Both I. N. T. U. C. and H. M. S. thus appear to be wedded to democratic means to achieve their ends. The A. I. T. U. C. founded in 1920 and now dominated by the communists, strives to establish a socialist state in India (as against the democratic socialist society by the H. M. S.) and to socialise and nationalise the means of production, distribution and exchange. Its thesis is that labour and capital cannot be reconciled within a capitalistic system and that trade unions are organs of class struggle. The United Trade Union Congress, which broke away in December, 1948, from A.I.T.U.C., has the aim to set up a trade union movement and build up a central platform of labour, free from the domination of political parties.

To a large extent, the present leadership of all-India organisations is in the hands of politicians and not in those of working classes. This has resulted in the absence, to a large extent, of genuine trade union leadership. The Indian Trade Union movement is also divided at the international level. I. N. T. U .C. and Hindi Mazdoor Sabha are affiliated to the International Confederation of Free Trade Unions, an organisation mainly supported by the Anglo American bloc; while A. I. T. U. C. is affiliated to the World Federation of Trade Unions supported by the Communist bloc.

Though the four national organisations dominate the Indian Trade Union movement, not all Trade Unions in India belong to them or follow their leadership. A very large number of small unions stand aloof from this leadership and a number of federations of Trade Unions prefer to operate as separate units, although they collaborate frome time to time with one congress or another. The striking examples of these are Ahmedabad Textile Labour Association and National Federation of Indian Railwaymen.

Membership of All India Organisations

	No. of Unions affiliated		*Membership*	
	1955	1956	1955	1956
I. N. T. U. C. ..	604	617	9,30,968	9,71,740
Hind Majdur Sabha ..	157	119	2,11,315	2,03,798
A. I. T. U. C. ..	481	558	3,06,263	4,22,851
United Trade Union Congress ..	228	237	1,95,242	1,59,109
	1,470	1,531	16,44,488	17,57,498

NATIONAL EMPLOYMENT SERVICE –Employment exchange, which was set up in 1945 to resettle demobilised personnel, were entrusted with the task of finding employment for displaced persons. The Exchange now renders employment assistance to all grades and categories of employment seekers. The exchanges are run by the Directorate General of Resettlement and Employment of the Ministry of Labour. The exchanges give priority to the Scheduled Castes, Scheduled Tribes, retrenched Government servants and displaced registrants in finding employment. Whenever possible, special facilities are provided for women.

The Employment exchanges have now been transferred to the State Governments that now administer exchanges and training centres. There are now 198 employment exchanges. The Central Government now limits its responsibilities to policy-making, co-ordination of procedure and standards and to the rendering of assistance wherever needed. There were 104 training centres under the Craftsman Training Scheme at the end of December, 1957. The Central Training Institute for trained craftsman instructors is at Koni-Bilaspur (M.P.) and a second centre is being started at Aundh (Bombay). A National Council for Training of Vocational Trades has been set up to advise the Government of India on all questions of training policy, to co-ordinate vocational training and to lay down uniform standards. It also awards national certificates of proficiency to craftsmen. Another important event was the launching of the youth employment service and employment counselling.

INDIA AND THE I. L. O.—India has been an active member of the I.L.O. from its very inception in 1919 and is a permanent member of its governing body since 1922 and also a prominent member of the organisation as one of the ten leading industrial countries of the world. India has three members on the Governing Body at present. Her contribution to the finances of I. L. O. is also considerable, amounting to 5 p.c. of the total revenue of the Organisation.

The International Labour Conferences have so far ratified 107 conventions of which India has ratified 22 conventions.

India has been receiving technical assistance from I. L. O. since 1951 in the following fields—(*a*) Social Security, (*b*) Training-within-industry (*c*) Vocational instructors (*d*) Employment service (*e*) Productivity.

The I. L. O. has set up an Asian Field Office at Bangalore in 1949. This office looks after the planning, implementation and critical evaluaction of technical assistance programmes in the countries of Asia. A branch office of the I. L. O. was established in 1928 in New Delhi and has continued its existence without interruption ever since.

CENTRAL LABOUR INSTITUTE—The foundation stone of the Central Labour Institute was laid at Kurla, near Bombay, on Oct. 7, 1954. The Central Labour Institute aims at affording facilities for scientific study on various aspects of industrial development relating to human factor. It will consist of a museum of industrial safety, health and welfare, and industrial hygiene laboratory, a training centre and a library-cum-information centre. A National Productivity Centre has been set up in Bombay, which will become a part of the Central Labour Institute. The institute will be built up on a 13 acre plot at Kurla, Bombay. Government of India has made a capital grant of Rs. 10 lakhs for the construction of the main building. Under the operational agreement between U.S. Government and the Government of India, $ 100,000 has been made avilable for the purchase of plant, equipment and technical publications for the Institute.

AVERAGE DAILY NUMBER OF WORKERS EMPLOYED

All Factories

1950	2,504,399	1954	2,689,757
1951	2,536,544	1955	2,690,103
1952	2,567,153	1956	2,882,309
1953	2,528,026	1957 (*First half*)	2,610,208

(*Monthly Abstract of Statistics August, 1958*).

EMPLOYMENT EXCHANGE STATISTICS

	No. of Registrations	*Total Placings*
1953	1,408,800	185,443
1954	1,465,497	162,451
1955	1,584,024	169,735

INDUSTRIAL DISPUTES IN INDIA

(Resulting in work-stoppages involving 10 workers or more).

	No. of Disputes	*Workers involved*	*Loss of man-days*		*No. of Disputes*	*Workers involved*	*Loss of man-days*
1945	820	747,530	4,054,499	1952	963	809,242	3,382,608
1946	1.619	1,961,948	12,717,762	1953	772	466,607	3,382,608
1947	1,811	1,840,784	16,562,666	1954	840	477,138	3,372,630
1948	1,811	1,050,120	7,837,173	1955	1.166	527,767	5,697,848
1949	920	685,457	6,600,595	1956	1,203	715,130	6,992,040
1950	814	719,883	12,806,704	1957	1,248	....	4,982,229
1951	1,071	691,321	3,818,928				

AGRICULTURE IN INDIA

IMPORTANCE OF AGRICULTURE IN INDIA—India is one of the leading agricultural countries in the world and one of the biggest sources of its wealth is its produce from land. It is the basic industry and provides employment to about 100 million people. It also contributes fifty per cent of our national income. In addition, a number of agricultural products are exported and earn valuable foreign exchange for the country. Some of our biggest industries, like sugar and textiles, depend on agriculture for raw materials.

The world position of Indian agriculture is indeed a big one. India enjoys a virtual monopoly in lac and leads the world in the production of groundnuts and tea. It is the second largest producer of rice, jute, tobacco, raw sugar, rape-seed, sesamum and castor-seed.

Cereals are the most important items of agricultural production, being grown on about 60 per cent of the cropped area. Rice accounts for about half of India's cereal output; the other half is accounted for by a variety of grains including wheat, millet and barley. In addition to cereal production, 18 per cent of India's total cropped area is devoted to pulses, gram and other food crops. Nevertheless, India does not produce sufficient food for its own needs. One of the major objectives of the Five-Year Plans is to make India self-sufficient in foodstaffs by bringing more land under production through irrigation and reclamation and by increasing productivity. Various commercial crops are also significant. Oilseeds, cotton, sugarcane, tea, coffee, spices, rubber and jute are the most important. Such crops form the basis of some of major industries and are among the leading exports, either in raw or manufactured form.

DEFECTS OF INDIAN AGRICULTURE AND SHORTAGE OF FOOD—Indeed the defects of Indian agriculture become evident when the per acre yield of most crops in India is compared with that of foreign countries. The average yield per acre of agricultural products in India is comparatively poor. Average production of wheat per acre in India is about 700 lb., while it is 1,918 lb. in Egypt, 1,713 lb. in Japan, 898 lb. in China. As regards rice, production of India is about 750 lb. per acre, which is 3,444 lb. per acre in Japan, 2,998 lb. per acre in Egypt, 2,433 lb. per acre in China and 2,185 lb. per acre in U.S.A. This bespeaks the backwardness of India's agriculture, which, by the way, is due no less to the growing lack of soil fertility as to the mediaeval technique of agriculture and an almost complete lack of capital to be employed in it. It may also be said that the production of food was outstripped by the growth of population. The partition of the country in 1947 and the consequent separation from India of the canal-irrigated areas of Sind and the Punjab and the lowlands of East Bengal not only aggravated the food shortage but also created an acute deficiency in jute and long and medium staple cotton. Indian agriculture has to contend with a notoriously capricious nature. Draughts alternating with devastating floods are a common occurrence in one part of the country or another. Moreover agriculture in India suffers from the impoverishment of soil and the fragmentation of holdings. All these drawbacks account for the poverty of the peasants and rural indebtedness.

AREA AND SOIL—The total area available for cultivation is 71.83 crore acres or 88.6 per cent of the total area. The total area cultivated annually is 30.24 crore acres. The cultivated area works out to 1.2 acres per head of the agricultural population. Forests cover 11.56 crore acres, while there are 5.52 crore acres of culturable waste land and 6.81 crore acre of fallow land.

Four main types of soil are (1) *alluvial*, (2) *black*, (3) *red* and (4) *laterite*. The first three are rich in potash and lime, but deficient in phosphoric acid, nitrogen and humus. The laterite soil possesses plenty of humus, but lacks most of the other chemical ingredients. The alluvial soil is the most fertile and easily worked and covers almost the entire Indo-Gangetic plain and the narrow coastal strips girdling peninsular India. Highly retentive of moisture and sticky, the black soil covers the western portion of the Deccan plateau, while the red soil covers the eastern part. The laterite soil is found in Central India, Assam and along the Eastern and Western Ghats.

In addition to four main groups of soils mentioned above, the *desert soils* of the sub-continent occupy a large tract in Rajasthan and the south Punjab. Rajasthan desert alone occupies an area of 40,000 sq. miles.

Saline and Alkali soils also form an important group of Indian soils. Such soils are characterised by a high degree of impermeability and stickiness together with high alkalinity and frequent presence of large excess of free salts. They are usually poor in nitrogen and humus and unsuitable for crop-growing without previous reclamation. *Forest soils* occupy a large part of the sub-continent. These soils belong to brown earth and podsol groups. *Marshy and peaty soils* are found in coastal areas of Orissa and West Bengal, North-West Bihar, Almora district of U.P., South-East coast of Madras and in Travancore-Cochin.

CROPS—The two outstanding features of agricultural production in India are the wide variety of crops and the preponderance of food over non-food crops. There is hardly a crop of the tropical, subtropical or temperate zone, which is not grown in some part or the other of this country. Food crops occupy about 75 per cent of the total cropped area. There are two well-defined crop seasons ; (i) *kharif* and (ii) *rabi*. The *kharif* crop is harvested in Nov. to Oct. 31 and *rabi* crop in May 1 to April 30. The major *kharif* crops include rice, jowar, bajra, maize, cotton, sugarcane, sesamum and groundnut; the major *rabi* crops are wheat, barley, tea, gram, linseed, rape, mustard ; and in South India, rice, jowar and cotton.

The seasons for individual crops are as follows—*Wheat*—Nov. to Oct. ; *Sugarcane*—Nov. to Oct. ; *Cotton*—Sept. to August ; *Jute*—July to June ; Tea—Jan. to Dec. ; *Coffee*—July to June.

Classification of Crops of India—The crops of India are usually classified as follows :—(1) *Food crops* such as rice, wheat, barley, millets, pulses and gram, sugarcane and spices ; Food crops occupy more than four-fifths of the cultivated land (2) *Oilseeds* such as linseed, rape and mustard, sesamum, castor, groundnut and cocoanut ; (3) *Fibres* such as cotton, jute, hemp and flax ; and (4) *Drugs and Beverages* such as poppy, cinchona, tobacco, tea and coffe.

THE GOVERNMENT ORGANISATION ON FOOD AND AGRICULTURE—This Ministry under the new nomenclature of Ministry of Food and Agriculture was set up in April, 1957. At present, the *Department of Food* is responsible for the following functions—(*a*) procurement of food grains for civil and military requirements (*b*) distribution of imported food grains to States (*c*) co-ordination, planning and guidance in regard to food policy from an all-India point of view (*d*) regulating import and export of food grains. *The Department of Agriculture* is responsible for the following broad functions—(*a*) agricultural production (*b*) agricultural research, education and extension (*c*) animal husbandry, fisheries and forestry (*d*) fruit and vegetable products industry (*e*) agricultural economics and statistics (*f*) agricultural development (*g*) liasion with Food and Agriculture Organisation of U. N. and other International Organisations (*h*) procurement and distribution of fertilizers (*i*) agricultural marketing (*j*) co-operation (*k*) land reclamation (*l*) agricultural minor irrigation (*m*) soil conservation.

AGRICULTURAL RESEARCH AND EDUCATION—Agricultural research and extension activities are carried out by the *Indian*

Council of Agricultural Research, the Central Research Institute and the Central Commodity Committees. Increasing attention is also paid by the Ministry to the improvement of facilities for training of technical personnel required for various agricultural development schemes as well as to agricultural education programme in general in the country.

The *Indian Council of Agricultural Research* is devoted to the aim of increasing agricultural production. The I.C.A.R. was set up in 1929 to promote, guide and co-ordinate research in the field of agriculture and animal husbandry throughout India and to link it with research in foreign countries. The Council's Advisory Board consists of experts representing the States, the universities and scientific bodies ; while the Governing Body is composed of State Ministers of Agriculture and the representatives of Parliament and commercial interests. The Council does not possess any research institution of its own, but sponsors agricultural research in co-operation with the State Governments in Central and State research institutions, universities and recognised private institutions. The Council mainly concerns itself with schemes of regional or all-India importance ; I.C.A.R. is responsible for the dissemination of the results of the researches carried out in the fields of agriculture and animal husbandry. The finances of the I.C.A.R. are obtained from Government grants, contributions from other sources and the income from a cess of half per cent imposed on the exports of certain agricultural products specified in the Agricultural Produce Cess Act, 1940.

The Central Research Institutes are engaged on a variety of research projects, both fundamental and applied. They conduct extensive inquiries to improve the fertility of the soil, the quality of grass and grass lands. They have evolved certain varieties of crops which are capable of resisting draught, disease, insects and pests.

India's largest agricultural research institute is at Delhi and is popularly known as *Pusa Institute*. The Indian Agricultural Research Institute was established by the Government of India on April 1, 1905 at Pusa. Conduct of fundamental and applied research and imparting of post-graduate training to students continue to be the chief activities of the Institute. The researches are conducted in Plant Chemistry and Soil Science, Entomology, Mycology, Plant Pathology and Agricultural Engineering. *Central Rice Research Institute, Cuttack*, carries on research in the field of breeding, agronomy, mycology, entomology and chemistry of rice. The multiplication of improved varieties of rice and experiments in green manuring and in new methods of transplantation are some of its other functions. The Institute has been selected by the F.A.O. as the venue for an international rice-breeding course. *Central Potato Institute at Poona* is engaged in evolving improved varieties of potatoes capable of giving high yields. Out of the five new regional centres planned to be set up for experimentation and trials on potatoes, three centres were established in 1958 at Babugarh, Jullundur and Nilgiris. A sub-station for multiplication of disease-free seed potatoes was also established at Mukteswar. *The Central Vegetable Breeding Station at Kulu* is experimenting on the adoption of European vegetable for Indian conditions. It is also investigating on self fertilised seeds and the manipulation of agricultural practices to secure increased production. *Indian Institute of Sugar Technology* at Kanpur was established in 1936 and is now maintained by the Indian Central Sugarcane Committee. It conducts research in different branches of sugar technology, renders technical assistance to factories and trains students. *The Indian Institute of Sugarcane Research* which was brought into being by the Indian Central Sugarcane Committee in 1922 at Lucknow, was taken over by the Central Government on 1st Jan, 1954. The scientific section of the Institute are Agronomy, Entomology, Mycology, Agricultural Engineering, Soil Science, Sugarcane Physiology and Gur and Khandsari Research. *The Sugarcane Breeding Institute, Coimbatore and its sub station at Karnal* carry on valuable investigation. *Forest Research Institute at Dehra Dun* was opened in 1914 and is engaged in research on silviculture, forest botany, entomology, the seasoning, preservation and the technology of wood, timber mechanics, cellulose and paper pulp chemistry and on minor forest products. There is also another *Forest College at Coimbatore* for forest training. The Institute also provides training for forest officers. *Indian Veterinary Research Institutes at Izatnagar and Mukteswar* were established in 1890. The Institute carries on its normal activities pertaining to research, teaching, manufacture of veterinary biological products and advisory work. Six regular courses of training in the different branches of Animal Science are conducted at the Institute. The Institute has been recognised by F.A.O. as an international training centre. *Indian Dairy Research Institute at Bangalore* trains students for diploma course in dairying and conducts research on dairy problems. It is also engaged in the development of pedigree herds of Red Sindhi and Gir cows. In accordance with the decision of the Government of India, a *National Dairy Research Institute* at Karnal has been started. The Institute forms a close link with dairy trade and industry and feeds it with information derived from scientific studies and field investigation. The Dairy Science College attached to the Institute started functioning from 15th July 1957 which is attached to the Punjab University. There are two cattle farms at Karnal and Coimbatore and a creamery at Anand. Among the other important research stations are the *Indian Lac Research Institute at Namkum, Ranchi* which is engaged in fundamental and applied research in the entomology and chemistry. Regarding fishery research the three important stations are *Central Inland Fisheries Research Station, Calcutta, Central Marine Research Station, Mandapam Camp* and *Deep Sea Fishing Station, Bombay* where inland, marine and deep sea research are being carried on. Under these research station there are many survey centres and stations.

Commodity Committees—The Indian Central Committees for cotton, jute, oilseeds, sugarcane, cocoanut, arecanut and tobacco operate and subsidise a number of research schemes at various research stations and sub-stations. These committees are financed by proceeds of a cess levied on the particular commodity :—

(1) *Indian Central Cotton Committee* is concentrating its research on the development of long-staple cotton and improved strains for which India is deficient. The Technological Research Laboratory of the Committee continues to render valuable services to cotton breeders, the trade and industry in assessing the economic importance of new strains.

(2) *Indian Central Jute Committee's* research and extension work is undertaken by *Jute Agricultural Research Institute, Barrackpur, Technological Research Laboratories, Tollyganj, Calcutta, Economic Research Section* and the *Publicity Section.* The Committee also sponsors schemes of fundamental research at the *University of Calcutta, Bose Research Institute* and *Presidency College, Calcutta.*

(3) *Indian Central Oilseeds Committee* continues to finance schemes for agricultural research, multiplication and distribution of improved varieties of oilseeds, technological research of village industry.

(4) *Indian Central Sugarcane Committee* maintains Indian Institute of Sugar Technology at Kanpur, established in 1936. It conducts research in sugar technology, renders technical assistance to factories and trains students.

(5) *Indian Central Cocoanut Committee* has many regional research stations. The Committee conducts researches on the various aspects of cocoanut cultivation.

(6) *Indian Central Arecanut Committee* subsidises number of research schemes. There are three regional arecanut research stations in Mysore, Kerala and South Kanara and other places started with the help of the Committee.

(7) *Indian Central Tobacco Committee* was constituted by the Government of India in 1945 with representatives on it of all interests connected with the commodity. The Committee has since established the Central Tobacco Research Institute at Rajahmundry (Andhra) for fundamental research on all types of tobacco and applied research on cigarette tobacco and *lanka* tobacco grown in that area and regional experimental stations at Vedasandur (Madras) for cigar and cheroot tobacco, at Pusa (Bihar) for hookah and chewing tobacco, at Dinhata (West Bengal) for hookah and wrapper tobacco. A sub-station for flue-cured tobacco, also serving as a regional station for *natu* (country) tobacco, is functioning at Guntur (Madras). A tobacco research station has recently been established at Hunsu in Mysore State for research on cigarette and local tobaccos. Besides these, the Committee also finances wholly or partly research schemes on bidi tobacco at the Institute of Agriculture, at Anand, Bombay and at Nipani in Mysore and on hookah tobacco at Ferozepore in Punjab.

(8) *Indian Central Lac Cess Committee, Ranchi,* aims at

propagating the results of research among lac cultivators. It carries on research both on the entomology and chemistry of lac.

(9) *All India Cattle Show Committee, Karnal, Punjab.*

The number of research institutes, stations and farms are also maintained by the Central Commodity Committees :—

1. Indian Central Cotton Committee has— (a) *Technological Laboratory, Matunga, Bombay,* (b) *Institute of Plant Industry, Indore.*

2. Jute Committee has—(a) *Jute Agricultural Research Institute, Barrackpore* (Bengal), (b) *Technological Research Laboratories, Tollyganj, Calcutta,* (c) *Economic Research Section, Indian Central Jute Commitee, Calcutta.*

3 The Tobacco Committee has—(a) *Central Tobacco Research Institute, Rajahmundry,* (b) *Cigar and Cheroot Tobacco Research Station, Vedasandur,* (c) *Hookah and Chewing Tobacco Research Station, Pusa, Bihar,* (d) *Cigarette Tobacco Research Sub-station, Guntur,* (e) *Wrapper Tobacco Research station, Dinhata, Bengal.*

4. Sugar Committee has—*Sugar Sub-station, Karnal, Punjab.*

The *Directorate of Economics and Statistics*—This sole organisation under the Central Government dealing with all agro-economic problems in the sphere of food and agriculture—has continued to fulfil its useful role by supplying statistical material, preparing memoranda on current issues of agro-economic policy, besides examining the progress in the implementation of the first Five-Year Plan. They issue *All India Crop Estimates* and *All India Rice Estimates*, regular forecasts for small millets.

OWNERSHIP & HOLDINGS—Of the 294 million persons which the 1951 census estimates as depending for their livelihood on agriculture, roughly 167 million consist of those who own (wholly or mainly) and cultivate land and their dependents. About 31½ million belong to the category of cultivators of land not owned by them and their dependents. About 45 million consist of cultivating labourers and their dependents and about 5½ million are non-cultivating owners, rent receivers and their dependents.

Average holding in India is about 5 acres, though the size varies from State to State. According to the Report of the Famine Enquiry Commission, it was 11.7 acres in Bombay, 10 in Punjab, 6 in U.P., 4.5 in Bengal, 4.4 acres in Madras. A greater evil than sub-division is the fragmentation of holdings. It is the biggest single obstacle to economic cultivation, leading to increased overhead costs and to the under-employment.

Both voluntary method and compulsory method for the consolidation of holdings have been tried since 1912 to check sub-division and fragmentation. Punjab had led the way in voluntary consolidation. Legislation involving varying degrees of compulsion have therefore been enacted and revised from time to time in the States. Efforts have also been made to organise co-operative farming. The trend of legislation and land policy in recent years has been to prevent the growth of small and uneconomic holdings and concentration

of land in a few hands. The legislation for the consolidation of holdings was first passed in Madhya Pradesh in 1928, Uttar Pradesh (1939), Bombay (1947), Punjab (1936 and 1948), Delhi (1936 and 1948), Jammu and Kashmir and PEPSU have passed similar acts for consolidation of holdings.

AGRICULTURAL POLICY—The growing shortage of food had been the main feature of the Indian agriculture for the last 30 or 35 years. The acute food-shortage was brought out prominently during the Bengal famine of 1943. This food shortage was due to the various causes, such as phenomenal increase of population outstripping production of food, partition of the country, etc. So various means were undertaken by the government to increase the food production of the country. From the famine year of 1943, *Grow More Food Campaign* was initiated. During first four years of starting of Grow More Food Campaign, grants and loans were given by the Centre to the States to enable them to increase production. Central assistance was, however, given only for specific programmes—such as ***works schemes*** and ***supply schemes.*** Works schemes include the construction and repair of wells, tanks, small dams, channels and tube-wells, and the installation of water-lifting appliances such as pumps etc. Also included in this class were the schemes of contour-bunding and the clearance and reclamation of waste land. Supply schemes cover the distribution of fertilizers and manures and improved seeds.

The principal aspects of the development under these schemes are the following (1) *minor irrigation* which consists of wells and tanks, pumping sets, Persian wheels, tube-wells, etc. (2) *land Reclamation* (3) *manures and fertilizers* (4) *Distribution of improved seeds* (5) *Japanese methods of paddy cultivation.*

METHODS OF FOOD PRODUCTION—The various important methods for the increase of food productions which have been adopted by the government are as follows —

G. M. F. Campaign—The Grow More Food Campaign has given impetus to better irrigation facilities, increased use of fertilizers, improved varieties of seeds, improved cultural practices and various methods of intensive cultivation. *Central Fertilizer Pool* has been formed to make ammonium sulphate available to the cultivators throughout the country at reduced and uniform prices. The consumption of superphosphate, compost manure, bonemeal has been greatly increased. Multiplication and distribution of improved seeds is developing rapidly. The distribution of seeds is handled through Government depots and co operative societies. Under the 2nd Five-Year Plan, a seed multiplication farm with one or two seed stores will be set up in each national extension service block. Other important improvements under G.M.F. campaigns are minor irrigation projects for sinking and constructing of tube-wells and introduction of *Japanese methods of paddy cultivation* in 1953, which lays more emphasis on higher doses of fertilizers and is recommended where adequate moisture supply is assured. Average yield of rice per acre under the Japanese Method worked out to 24.89 maunds as against 13.33 maunds by local method. The area under the method of cultivation has increased to about 24 lakh acres in 1956-57.

After Grow More Food Campaign came the *Integrated Production Programme.* It was formulated in 1950-51 for the achievement of relative self-sufficiency in food, cotton, jute and sugar. It has become a part of the first Five-Year Plan which has, in turn, been integrated into the ten-year programme of land transformation. The five main programmes are (*a*) concentration of the available funds and technical facilities in 48 million acres with an assured water supply, (*b*) reclamation and cultivation of 10 million acres of waste and fallow lands, (*c*) organisation of *Bhumi Sena,* (*d*) *gosambardhan* drive for producing 80,000 stud bulls a year and for the eradication of rinder-pest in the country and (*e*) regular observance of *Vana Mahotsava* with the object of planting 300 million trees.

Land Reclamation—The land reclamation work for bringing more land under cultivation is carried on by two agencies, namely, *Central Tractor Organisation* and *Tractor Organisation of certain States.* Central Tractor Organisation was founded in 1917 with about 200 tractors abandoned by U.S. Army. Since its inception, it has carried out some of the largest reclamation operation in Asia. The Central Tractor Organisation reclaimed up to October 1957 over 16 lakh acres of kans-infested and jungle areas in the Punjab, Madhya Pradesh and Uttar Pradesh and has developed lands for cultivation in Bihar. A fleet of 240 new tractors was purchased in 1951 out of a loan obtained by the Government Stations have been established at Amraoti, Bilaspur, Cuttack, During the First Plan 10.84 lakh acres of land were reclaimed by the Central Tractor Organisation and about 17 lakh acres by State Tractor Organisations. The Organisation also embarked upon a new type of work, *viz.*, land levelling and terracing in Bihar and M.P. A Tractor Training Centre has been set up at Budni (Madhya Pradesh).

Plant Protection and Locust Control—Plant Protection Equipments Stations have been established at Amraoti, Bilaspur, Cuttack, Dharwar, Gauhati, Gaya, Pathankot, Delhi, Palampur, Indore, Hyderabad, Tiruchirapalli, Ernakulam and Bara Banki.

An aerial unit was established in May, 1957. Plant Protection Stations were established at the sea ports of Calcutta and Visakhapatnam and at the air ports of Bombay, Madras, Calcutta and New-Delhi. A field station for investigation on locusts was established in Bikaner.

Crop Competition—Another method for the increase of crop production is the crop competition initiated by the Central Government. Under this competition, the Central Government award all-India cash prizes of Rs. 5,000 and a certificate of *Krishi Pandit* to the farmers producing highest yield in respect of wheat, gram, potato, paddy, jowar and bajra crops.

BHOODAN MOVEMENT—On a rough estimate there are about 4.5 million landless labourers in the country. In spite of the abolition of zamindaries, there was no hope for these landless labourers. So

Acharya Vinoba Bhave has started *Land Gift Movement.* This is an appeal to the landowners of India to donate land for the landless. The noble efforts of Vinoba Bhave have met with remarkable success. The movement has also received direct support of the State Governments and some political parties. Millions of acres of land have been donated. For the proper utilization of this donated land, the scope of the movement has been enlarged—such as *Koopdan* (gifts for sinking of wells) and *Sampattidan* (gifts for procuring agricultural implements and drought animals).

AGRICULTURAL MARKETING—The object of agricultural marketing is to reorganise the existing system so that farmer may secure his due share of the price paid by the consumer and to subserve the needs of planned development. These objectives are sought to be secured through regulation of markets, standardisation and grading of commodities and development of marketing and processing on a co-operative basis. *Agricultural Produce (Grading and Marketing) Act* was passed in 1937 for grading the agricultural produce. The grading under this Act is permissive. But it is compulsory in respect of some export commodities such as sann-hemp fibre, cigarette tobacco leaf, wool, bristles lemon grass oil and sandal wood oil. The Directorate of Marketing and Inspection whose functions are related to the grading and standardisation of agricultural commodities, promotion of regulation of markets, training of marketing personnel, surveys on marketing of agricultural commodities and the administration of the Fruits Products order, fixed grade specifications for 114 varieties of different commodities. Under this Act, *Agmark* has been chosen as national insignia and all graded commodities are marketed under this stamp which stand for purity and quality. Important commodities now graded under Agmark are ghee, vegetable oils, cream butter, eggs, rice, atta, cotton, gur, jaggery and fruits. Commodities graded primarily for export are tobacco, sann hemp, essential oils (sandal-wood and lemon grass), wool and bristles. By notification under S. 19 of the Sea Customs Act, 1878, it can be ensured that specified commodities are permitted for export only after grading. Quality control work in respect of fruit and vegetable products, such as jams, jellies, quashes and other soup drinks is enforced under the Fruit Products Order, 1955. In addition to grading, the Directorate has been paying increasing attention to the regulation of markets and market practice. Agricultural commodity markets are regulated under the State Agricultural Produce Markets Acts. The Advisory Section set-up in the Directorate in 1958 continue to render assistance and advice to State Governments. Acts to regulate markets are in force in nine States—Bombay, Madras, Mysore Andhra Pradesh, Vindhya Pradesh, Punjab, Kerala, Delhi, Orissa.

An integrated programme of co-operative development embracing credit, marketing, processing, warehousing and storage was formulated on the basis of the programme recommended by the Rural Credit Survey Committee of the Reserve Bank.

The Committee recommended State partnership with Co-operative institutions at various levels. To enable the State to subscribe to the share-capital of co-operative credit institutions, a National Agricultural Credit Fund has been created by the Reserve Bank. A National Co-operative Development and Warehousing Board has been set up and a Central Warehousing Corporation and 16 State Warehousing Corporations are to be set up. With the establishment of warehouses and godowns, the cultivators will be able to store a sizable part of the marketable surplus of their commodities, at the same time obtain short-term credit on the basis of ware house receipts.

AGRICULTURAL WAREHOUSING CORPORATION To facilitate marketing of agricultural produce, it was planned to establish a *Central Warehousing Corporation* at the Centre and a State Warehousing Corporation in each State. Central Warehousing Corporation has come into existence and has started six warehouses in hired accomodation at the following centres—Amaravati, Gondia, Sangli, Dodag, Davangere and Bargarh. State Warehousing Corporations have been started in seven States, namely, Bihar, Bombay, Mysore, Rajasthan, Madras, West Bengal and Orissa.

FOOD CROPS

Rice—the staple food of the majority of the people, is the leading crop of India and occupies about 30 per cent of the total cultivated area. As sufficiently high temperature, high rainfall and fertile alluvial plains are necessary for the growth of the crop, the southern and north-eastern parts of India are the main regions of rice growing. In order of merit, Madras, Bihar, Bengal, U.P., M.P., Orissa, Assam and Bombay are the main rice-growing areas. Rice is special crop in the monsoon tracts. In eastern and southern India it is the staple article of diet. The bulk of rice is winter crop, i.e., sown in June-July and harvested in November-December. There are about 4,000 distinct varieties of rice in India. The average rice yield in India is low, being only 723 lb. of cleaned rice per acre as compared to 2,350 lb. in Japan.

Wheat—which is the staple food of central and northern India is winter crop, sown in India from October to December and harvested from March to May and stands next only to rice in importance. U.P. and Punjab form the principal wheat growing area, supplying about three quarters of the total outturn in the country. The two main species of wheat grown in India are the so-called '*bread*' wheat of Europe and the so-called '*marconi*' wheat and it is estimated that about a third of the total acreage of wheat in India is under improved varieties.

Barley—a subsidiary food to wheat-eaters is a *rabi* crop and is grown mainly in the U.P. and Bihar. Compared to her pre-war acreage and yield of about 6 million acres and about 1·9 million tons, India has now about 7 million acres under barley, producing about 2·4 million tons.

Millets—*via., jowar* (called choiam in Madras) and *bojra.* The two main varieties of millets grown in India constitute the staple food of the agricultural population of the south. Both of them are mainly grown as *kharif* crops. While jowar is mainly grown in Bombay, Hyderabad, M.P., Madras, U.P., bajra is grown mainly in the Rajasthan, Bombay, the U.P., Madras and Punjab in order of importance. It is estimated that jowar is grown in about 20 million acres yielding about 4 million tons while bajra is grown in about 16 million acres yielding more than 2 million tons. Another such food-crop, grown mainly in the south, is *ragi* which accounts for about 5 million acres, producing about 1.4 million tons annually. Another food crop, uncommonly rich in its food value, is *maize* (commonly known as makai or bhutta). Although grown more or less all over India, it is grown mainly in the U.P. and Bihar.

Gram and the Pulses—These constitute an important and balancing item of the popular diet in the country. Pulses form the primary source of protein for the vegetarian population of the country. Some of them form a source of nutritious fodder, while others make excellent green manure crops. *Gram*, the most commonly grown pulse of India, is a rabi crop and accounts more or less for about 17 million acres and 3.5 million tons. U.P., Punjab, Bihar, M.P., and Hyderabad are in order of merit the most important gram-producing areas. Khesari, mung, masur, arhar, mattar and kalai are the other pulses, also grown extensively throughout the country.

Spices—Though spices constitute only a minor crop in India's agricultural economy, their importance in the foreign trade of the country is considerable. The five important spices, pepper, cashewnuts, cardamom, ginger and turmeric earn considerable foreign exchange. The Spices Enquiry Committee in 1953 drew attention to the need for organised efforts for improving the production and marketing of these commodities. The committee stressed in particular the need for promoting developmental measures, more agricultural research, improvement of methods of marketing and export promotion.

Pepper—The West Coast, principally Kerala, is the source of pepper in India, though it is also grown in small quantities in Mysore, Madras and Bombay. There has been a steady increase in production in the post-war period. By far the greater part of exports is to the United States. Under the second Five-year Plan, the production of pepper is expected to increase from 27,000 tons to 32,000 tons.

Cashewnuts—Next to pepper, the most important dollar earner among spices is cashewnuts. India is now the principal source of supply for cashew kernels in the world, accounting for more than 95 per cent of the world trade in this commodity. The Cashew grows mainly along the coasts, from Kanya Kumari to Bombay on the west coast and upto Berhampore along the east coast, over a variety of conditions of climate and soils. The area under cashew is over 2 lakh acres and the annual production of Kernels is about 80,000 tons. Kerala is leading in area and production, is not sufficient to keep the factories busy throughout the year. Under the second Five-Year Plan, it is proposed to increase the production of cashewnuts from 80,000 tons to 106,000 tons or an increase of about 77 per cent. Under the auspices of A C A R. and State Governments, three research stations have been established at Ratnagiri in Bombay, Mangalore in Mysore State and Kottarakkara in Kerala with a view to promoting production of superior high yielding types.

Ginger—Like pepper, cashewnuts and cardamoms, the next important ginger-growing area is Kerala, though it is also grown in other States like Uttar Pradesh Jamaica and Sierra Leone form the main source of supply of this spice to the world. The bulk of the production in India is consumed as green ginger and the conversion of green ginger into dry form for export purposes is concentrated in the west coast region of Kerala. For evolving a better type of ginger with less fibre content, a Ginger Research Station at Karalangad in Kerala is proposed to be set up.

Turmeric—The principal turmeric growing areas in India are east coast namely, Andhra and Orissa To a smaller extent the crop is also grown in parts of Bombay, Madras and Kerala. The Turmeric Research Station started at Udayagiri in Orissa State under the auspices of I C A R has been carrying out investigations on many local problems of Orissa

Other Food Crops—Among *other food crops* mention must be made of the overall shortage of *fruits and vegetables* and which for the most part is almost totally out of the reach of the general mass of people and due to which the latter is an insufficient unit of popular food considering the dietary habits of the people The present annual supply of fruits and vegetables amounts to only 1 5 and 1 3 ounces per adult per day against the diet at 3 ounces and 10 ounces respectively. To make the position clear it may be mentioned that in potato for example, India's production is so very low that the per capita consumption comes to about only 8 lb per annum as compared to 506 lb in Belgium

PLANTATION CROPS

The great plantation areas of India are Assam in the north, the Nilgiri Hills and the West Coast area of Kerala in the South. The crops that are grown in the plantation areas are detailed below—

Tobacco—India stands third in the production of tobacco, the other countries being U S A and China It brings to the Indian grower an annual return of about Rs 40 crores It fetches to the country foreign currency to the tune of about Rs 12 crores and it contributes to the national exchequer about Rs 35 crores annually by way of excise duty Andhra Pradesh by far the most important tobacco producing State contributing about 40 p c. of the total production in India About 95 p c of the country's verginia tobacco comes from this State Bombay comes next, followed by Madras Mysore Bihar and West Bengal The other tobacco growing States are Assam, Orissa, Madhya Pradesh, Rajasthan and Punjab. Tobacco grown in India is of two distinct botanical species *Nicotiana tabacum* and *Nicotiana rustica* The former has pink flowers with large sessile leaves, while the latter has yellowish flowers and leaves with rounded tip. *Nicotiana tabacum* is used in the manufacture of cigarettes, cigars, cheroots, bidi, chewing tobacco, snuff, hookah and pipe tobacco, while *Nicotiana rustica* is used mainly for hookah, chewing tobacco and snuff. Tabacum provides the bulk of the export trade, with only a small portion consisting of rustica. Rustica represents only 8 p.c. of the total production of tobacco in the country. Cultivation of *Nicotiana rustica* is mainly confined to Upper India, while Nicotiana tabacum is grown all over the country. Tobacco cultivation in India is concentrated in the following zones—(1) *Guntur area* consists of the districts of Guntur, Krishna, East and West Godavari and Telangana in Andhra Pradesh. This area grows virginia tobacco (white burley and sun-cured virginia). (2) *Charotar (Gujarat) area* comprises the Anand, Borsad, Petlad and Nadiad talukas of Kaira district of Bombay State. This area grows mainly varieties of bidi tobacco famous all over India. (3) *The Nipani area* covering Belgaum in Mysore and Satara district with Kolhapur, Sangli and Miraj in Bombay State is also an important bidi tobacco-producing zone in the country. (4) *North Bihar and Bengal area* comprising the districts of Muzaffarpur, Darbhanga and Purnea in Bihar and Jalpaiguri, Malda ; Barhampur and Dinajpur in West Bengal grows tobacco varieties used mostly for hookah smoking and also for chewing and for preparing snuff. They are known locally vilayati, matihari and jati. (5) *The Uttar Pradesh and Punjab area* containing the district of Furrukhabad in the U.P. and the districts of Jullundur and Ferozepur in Punjab, produces types of tobacco used mainly for hookah smoking and chewing. (6) *South Madras area* covers Madurai and Coimbatore districts of Madras State. In this area, chewing snuff, filler and binder tobaccos are mostly grown.

Poppy—which was an important narcotic crop before International Agreement that led to the restriction of opium exports, is at present grown chiefly in U.P. and Central India and that mainly as a Government monopoly.

Cinchona—is mainly grown on Government plantations in the Nilgiri Hills and Darjeeling. Considering the overall need of the malaria-stricken country-side. production is still short and has to be supplemented by imports.

Tea--Indian Union is overwhelmingly the largest producer in the world. The yearly production is nearly 600 million lbs. About 82 per cent of India's tea comes from North India, mainly from Assam and the Dooars (West Bengal) ; this tea is exported through the port of Calcutta. Tea is, after jute and cotton, India's most important exchange earner.

Coffee—next to tea, coffee is considered the most important plantation crop in India. The Indian production though small, has consisted always of a large proportion of highest quality and is grown in about 224,000 acres yielding about 18,000 tons. India produces less than one per cent of the world coffee output. There are about 10,851 coffee plantations in India. With the exception of small areas in Orissa, Assam and Madhya Pradesh, Indian coffee is grown in the low hills of South India. Mysore is the most important growing area followed by Madras, Coorg and Travancore-Cochin.

Rubber—The cultivation of raw rubber on a plantation scale was undertaken in Travancore-Cochin, Malabar, Coorg and Mysore in early years of the present century. The production of rubber in the country at the present time is of the order of 16,000 to 17,000 tons. The total number of rubber estates registered upto 1957 was 37,293, of which 72.85 p.c. are located in Travancore, 7.19 p.c. in Cochin, 16.55 p.c. in Madras (mainly Malabar) and remaining 2.41 p.c. are in Coorg, the Andamans and Assam.

Pepper—India is supplying two-thirds of the estimated world demand. She is now producing, in and below the Western Ghats between Karwar and Cape Comorin, 31,000 tons of pepper grown over 195,000 acres.

Cardamom—is another spice, the largest exporter of which is India. The cardamom plantations are situated in the Western Ghats, south of Nilgiris and Palghat gap with the main concentration in the Cardamom Hills of Travancore (Kerala). Besides being the largest exporter, India forms the only source of true cardamom in the world market. India's cardamoms are valued for their higher oil content and aromatic properties and are, therefore, considered superior to the cardamom exported from other countries like Ceylon and Indo-China. The main markets of export are Sweden, Kuwait and Saudi Arabia. A Cardamom Research Station is being set up in Kerala.

Cloves—are chiefly grown in the foot-hills of the Western Ghats in the State of Madras. The production is insufficient to meet the demand.

FIBRES

Cotton—is the chief commercial crop of India. Bombay, Punjab, Madhya, Pradesh, Madras, Uttar Pradesh, Punjab, Andhra Pradesh, Rajasthan, Saurashtra, are the important cotton producing tracts of the country.

Jute—A monopoly of undivided India, it is at present grown in about 766,000 acres yielding about 2 million bales against a total requirement of about 6 million bales. Endeavour is being made therefore to extend its cultivation. Reclamation of fallow land, diversion of *aus* paddy land, double cropping of *aman* paddy land are some of the measures adopted to secure an increase in jute production and the result has been the progressive increase of jute production in India. The heat and humidity and heavy downpour of rain—unpleasant features of the climate of Bengal, are ideal for the growth of jute. The outturn of dry fibre of jute generally varies from 8 to 25 mds. with an average of 11 mds. per acre, depending upon soil fertility and other factors.

Hemp—is another fibre grown in India chiefly in the M.P., the U.P., Bombay and West Bengal. Small as the production is, it is used largely for the production of cordage and canvas.

Silk—Two-thirds of the total output of this fibre comes from Mysore. Of the other varieties of silk, "mulbery" silk is grown in the districts of Murshidabad, Malda and Birbhum of West Bengal, Dehra Dun and Parbatgarh of the U.P., Gurudaspur of Punjab and in Kashmir, where it is a state monopoly; '*tasar*' silk in the M.P., and the Chotanagpur division of Bihar; '*eri*' silk in the Jalpaiguri district of West Bengal and in Assam; and '*Muga*' silk in Assam and Manipur.

OTHER CASH CROPS

Sugarcane—In the sugar map of the world, India occupies a leading place producing about 4½ million tons, even exceeding that of Cuba. Sugarcane-growing is an important element in the agricultural economy, specially in Uttar Pradesh and Bihar. The average yield of cane per acre is now around 14 tons as compared to 56 tons in Java and 62 tons in Hawaii.

Indian Central Sugarcane Committee is a Central Organisation for co-ordinating sugarcane research and development work.

Lac—is a resinous material secreted by an insect which lives as a parasite on certain kinds of tropical trees known as lac hosts. The principal lac hosts are *Polas, Ber* and *Kusum*. The cultivation is not organised on a plantation basis and the trees are scattered on the holdings of cultivators and in the forest. The important producing places of lac are Chota Nagpur Division of Bihar, Purulia District of West Bengal as also of Madhya Pradesh, portions of Bombay, Orissa and Assam. This is an important 'cash crop' for the Adivasis. Lac is secreted from the glands of the lac insects and gradually a thick encrustation round the twigs is formed. This encrustation known as *sticklac* is scropped from the sticks and then crushed and washed to remove some of the impurities, such as dye and wax. The resultant product is known as *seed lac*. Seed lac is then processed into shellac either by indigenous cloth-bag method or hydraulic pressure method or solvent process method.

Myrobalan—is a small fruit produced on trees in mixed deciduous forests normally below 3,000 feet above sea level, but occasionally found up to 5,000 feet. When pulped it produces a substance used in the tanning industry. It is also used as a country medicine. The fruit is collected in the forests in Madhya Pradesh, Madras, Bombay, Bihar and Orissa and also derived from private forests.

Lemongrass Oil—Oil of lemongrass is an essential oil, a product distilled from the leaves of a special species of grass botanically known as *cymbogon flexuosus*. Lemongrass of the best variety which yields a superior oil is used for extracting aromatic chemicals employed in perfumery, soap, cosmatics and pharmaceutical preparations. The Travancore-Cochin Government Lemongrass Research Station has been established at Odakali near Perumbavoor, 14 miles from Ernakulam on August 27, 1955. Lemongrass is a dollar-saving product. Nearly 75 per cent of the world's supply of lemongrass oil is produced in the State of Travancore-Cochin where the area under cultivation is estimated at 40,000 acres.

Cashew Nuts—are grown mostly in Madras, Bombay, Orissa, Bengal and Kerala. Madras State is by far the most important State as far as cashew nut production is concerned. India ranks as the most important producer of cashew nut in the world and holds almost a monopoly, accounting for more than 95 per cent of the international trade in cashew nut kernels.

OILSEEDS

Oilseeds—India is one of the largest producers of oilseeds and holds a prominent position in the world trade of oilseeds being one of the principal exporting countries. Oilseeds in India are grown in an area of about 23 million acres representing 8 p.c. of the net cultivated area. Oilseed crops are those, from the seeds of which oil, either edible or non-edible is extracted. The crops may either be perennial as cocoanut, neem, mahua or annual like groundnut, gingelly, etc. Groundnut, gingelly, mustard, copra, castor and kusum are the most important edible oilseeds. The importance of oilseeds in the Indian economy is indicated by the fact that more than 25 million acres are devoted to their production, equivalent to about 10 per cent of the net area sown with crops in the whole of India. Indian Central Oilseeds Committee Act which was passed in 1946 was intended to promote the improvement and development in the cultivation and marketing of oilseeds and oilseeds products and in accordance with this Act the Indian Central Oilseeds Committee was constituted in May, 1947. This Committee is responsible for the development of all oilseeds excepting cocoanut for which a separate Committee, *viz.*, Indian Central Cocoanut Committee at Ernakulam (Cochin) has been constituted under the Indian Central Cocoanut Committee Act, 1944.

Linseed—a rabi crop, producing a very important industrial oil, is at present grown in about 3·3 million acres yielding more than 350,000 tons annually Cultivation of linseed is widespread throughout India ; main centres being Madhya Pradesh, Uttar Pradesh, Andhra, Bihar, Madhya Bharat, Rajasthan.

Castor—another non-edible oilseed, is a virtual monopoly of India, the average acreage and yield in recent years being 1·4 million acres and about 130,000 tons. It is grown almost throughout the length and breadth of India and Hyderabad is the most important producer with an area of 879,000 acres. About 70 per cent of the crop is available for export either as seed or as oil. India comes next to Brazil only in world production and trade of castor seed.

Groundnut—India has the largest area under groundnuts in the world. The groundnut cultivation has become a major agricultural operation in India and the crop is now estimated to occupy nearly 42 p.c. of the area under all oilseeds and 4.4 p.c. of the total area sown under all main food crops in the Indian Union. From a mere 0·5 million acres at the beginning of the century, the groundnuts now account for nearly 11 m. acres with an annual yield of 3½ million tons of nuts in shells and 4.10 m. tons of kernels. Nearly 80 p.c. of the groundnut area is concentrated in Madras, Andhra, Bombay, and the prominent varieties grown are the Coromandel and the Peanuts. Bold nuts grown in Saurashtra with a lower oil content are specially valued for eating.

The oil is used for culinary purposes. The advent of vanaspati has set up a great demand and vanaspati industry is the single largest consumer of groundnut oil.

Rape and Mustard—two other very important edible oilseeds are, unlike groundnut, rabi crops accounting for about 4·3 million acres and a little less than 800,000 tons in normal years. Uttar Pradesh grows well over half the rape and mustard in India. Other important producing areas are Bihar, Punjab, Assam and Rajasthan.

Sesamum—or gingelly or til also an edible oilseed, is a kharif crop grown in a little less than 4 million acres with an yield of more than 340,000 tons in normal years. The chief growers of sesamum are U.P., and Madras followed by Rajasthan, Hyderabad and Madhya Bharat.

Cocoanut—is an important oil-yielding tropical fruit. It provides many useful products to mankind. The kernel of the ripe nut in its raw state finds wide use in culinary preparations or is dried and converted into copra and crushed for oil. Coconut oil is greatly in demand for edible purposes as well as for the manufacture of soaps and toilet preparations. The tender nut affords a refreshing drink, while the unopened shell on tapping yields a sweet-juice or neera. Its leaf and timber are extensively used for constructing houses. In India it grows luxuriantly in the coastal and deltaic tracts and also in the interior of Mysore. India's share in the world acreage and production comes to 1·5 million acres and 3,400 million nuts respectively The bulk of this produce comes from the plantations located in the strip of land lying on the west coast of India between the Arabian Sea and the Western Ghats, extending from the Konkan in the north to Cape Comorin in the south and falling within the territories of North Kanara of Bombay State, South Kanara and Malabar districts of Madras and Kerala. The districts of Tanjore, Godavari in Madras, Andhra and Mysore, Orissa and Bengal also possess appreciable areas under the crop. To rehabilitate the industry and promote research a statutory body, the *Indian Central Coconut Committee* representing various interests, was constituted by an Act of 1944.

Cotton-seed—also an edible oilseed. is naturally a by-product of cotton cultivation and is extensively grown in India ; the average annual production being above 2 million tons.

PRODUCTION OF FOOD GRAINS

(000s omitted)

CEREALS	(unit)	1953-54	1954-55	1955-56	1956-57
Rice	(tons)	27,769	24,531	26,846	28,142
Wheat	(„)	7,890	8,778	8,569	9,068
Jower	(„)	7,954	9,093	6,602	7,427
Bajra	(„)	4,475	3,421	3,379	2,926

Maize	(„)	2,991	2,939	2,554	3,020
Ragi	(„)	1,846	1,646	1,820	1,914
Barley	(„)	2,905	2,870	2,749	2,744
Small millets	(„)	2,438	2,456	1,937	2,010
TOTAL CEREALS	(„)	**58,268**	**55,734**	**54,456**	**57,251**
PULSES					
Gram	(„)	4,756	5,393	5,331	5,930
Other pulses	(„)	5,694	5,477	5,500	5,505
TOTAL PULSES		**10,450**	**10,870**	**10,831**	**11,435**
TOTAL FOOD GRAINS (*Cereals & Pulses*)		**68,718**	**66,604**	**65,287**	**68,686**
NON-FOOD GRAINS					
1. Sugar (raw)	(tons)	4,423	5,760	5,982	6,745

	(unit)	1953-54	1954-55	1955-56	1956-57
2. Oilseeds	(„)	5,285	6,242	5,705	6,032
(a) Groundnut	(„)	3,391	4,128	3,862	4,086
(b) Rape & Mustard	(„)	858	1,019	848	1,017
(c) Sesamum	(„)	554	589	457	451
(d) Linseed	(„)	379	382	414	349
(e) Castorseed	(„)	103	124	124	129

	(unit)	1953-54	1954-55	1955-56	1956-57
3. Cotton (lint)	(392 ℔. each)	3,944	4,227	4,001	4,723
4. Jute	(400 ℔. each)	3,091	2,928	4,197	4,221
5. Mesta	(„)	650	1,018	1,159	1,474
6. Silk (raw)	(℔.)	2,462	3,208	. .	. .
7. Tea	(℔.)	5,88,733	6,46,384	6,35,357	. .
8. Coffee	(tons)	25	26	30	. .
9. Rubber	(„)	20	19	22	. .
10. Tobacco	(„)	268	244	295	1,306
11. Lac	(mds.)	654	1,023	1,248	1,315

(*Report on Currency & Finance 1957-58*)

INDEX NUMBERS OF AGRICULTURAL PRODUCTION

(Base : Agricultural year 1950=100)

	Weight	1952-53	1953-54	1954-55	1955-56	1956-57
Total sereals	.. **58.3**	**101.4**	**120.1**	**114.0**	**113.7**	**119.4**
Total pulses	.. **8.6**	**98.8**	**112.0**	**117.3**	**112.3**	**120.9**
Total foodgrains	.. **66.9**	**101.1**	**119.4**	**114.4**	**113.5**	**119.6**
Total oilseeds	.. **9.9**	**91.9**	**103.7**	**121.7**	**109.2**	**115.9**
Total fibres	.. **4.5**	**128.4**	**132.1**	**141.2**	**148.3**	**168.9**
Total plantation crops	.. **3.6**	**115.7**	**104.0**	**113.2**	**118.5**	**120.2**
Total miscellaneous	.. **15.1**	**101.5**	**97.4**	**115.0**	**120.6**	**129.5**
Total Non-food grains	.. **33.1**	**103.8**	**104.7**	**120.4**	**120.7**	**129.8**
All Commodities	.. **100.0**	**102.0**	**114.3**	**116.4**	**115.9**	**123.0**

(*Report on Currency & Finance, 1957-59*).

LAND UTILIZATION IN INDIA

(In million acres)

	1954-55	1953-54	1952-53
Total Geographical area			
According to Surveyor-general of India	806.3	806.3	810.8
According to village papers ..	719.2	719.0	718.3
Forests	123.8	124.3	126.1
Not available for cultivation ..	120.1	122.6	123.1
Other uncultivated Land excluding fallow Land	98.0	97.7	99.0
Fallow Lands	61.6	61.1	65.4
Net area Sown	315.8	313.3	304.7
Total cropped area	355.8	352.0	340.0

FISHERY IN INDIA

Indian with a coast line of 3,500 miles into which numerous large, perennial rivers discharge their silt-laden waters, innumerable gulfs, creeks, bays and oceanic islands, has a fishable area of about 110,000 square miles. Similarly, the extensive backwaters, estuaries, lagoons and swamps, numerous rivers, streams and channels and a very large number of perennial and semi-perennial lakes, beels, reservoirs, tanks, ponds and other stretches of water, a large proportion of which is culturable, are a rich potential of inland fisheries. So far as sea area is concerned, only a small portion is at present worked. This, it is stated, is because the methods used by Indian fishermen are not modern, most of them using country boats like catamarans and small nets which are not adequate for fishing in deep seas. The chief sources of supply of fish are the coastal margins of the sea, river estuaries and backwaters for marine and estuarine fish and rivers, canals, tanks, inundated tracts, etc., for the fresh water fish.

India's national income is enriched by nearly Rs. 60 crores from India's fisheries both marine and inland. Along the country's extensive coast-line about 73,400 fishing crafts employing nearly a million fishermen ply day and night. Indian fishermen compare poorly with those of foreign countries ; their average being 2,500 pound per man per year, as against 80,000 in some foreign countries. Today more than 800 mechanised boats are operating on Indian coast lines.

INLAND FISHERIES—constitute fresh fish from rivers, canals, tanks, ponds, irrigation channels, inundated tracts, etc. They are the mainstay of inland fisheries of India. The extensive areas of Ganges system, Brahmaputra in Assam, Mahanadi in Orissa, Narmada, Tapti, Godavari, Kishna and Cavery in the Madhya Bharat and South India are the main area for inland fisheries. In this class of fish, West Bengal leads the rest of India. The three States of West

Bengal, Bihar and Assam account for 72 per cent of the total fresh water fish in India.

SEA FISHING—Sea fishing is mainly carried on in small crafts having a displacement of under five tons in coastal waters from five to seven miles from the shore and within a depth of 10 fathom. With the exception of a few off-shore fishing boats operating in certain localities, very few fishermen make voyages which would entail staying in the open sea longer than 12 hours at a time. There is, at present, practically no night fishing. This is largely because the equipment used for sea-fishing consists mostly boats, canoes, catamarans and small nets and tackles which are not of a type which can stand the rigours and requirements of off-shore or deep sea fishing. So the mechanization of fishing operation has become an absolute necessity.

The sea fisheries are confined to the coastal waters from the shore of Gujarat, Canara, Malabar coast, Gulf of Manar, Madras coast and Coromondal coast. The principal sea fishes around the coasts of India are herrings, mackerel, prawns, jew fish, cat fish, mullets, pomfrets, and Indian salmon. Mackerel accounts for over one-third of the total catch. Herrings account for over 15 p.c. of the total catch.

ESTUARINE AND BACKWATER FISHING—Chilka lake in Orissa, backwaters in Madras, Cochin and Travancore, deltaic areas of Sundarbans and Mahanadi are the principal sources of estuarine and backwater fish. The estuaries of Mahanadi and the Ganges stretching from Puri to Hooghly are extensive fishing grounds containing hilsa, pomfrets, prawns, catla, cat fish, rohu, etc.

REFRIGERATION— Another important item for the improvement of fish production in India is the refrigeration, without which this problem cannot be solved. At present, though large quantities of fish are being caught, but for want of refrigeration facilities and transport, only a small portion of the catch can be used in a fresh condition. So for the better supply of fish two things are absolutely necessary—(1) quick transport of fresh fish from large assembly centres to some of the towns in fast motor vans, (2) provision of refrigerated rail transport. Cold storage facilities exist in Bombay, Mangalore, Calicut, Cochin, Quilon, Trivandrum, Madras and Calcutta.

FISHING INDUSTRY—(1) There is practically no fish-canning industry in India, but fish curing is being carried on in various ways. In India fish is preserved by desiccation with or without salt and by the use of antiseptic preservatives, such as brine, vinegar, etc. The main process is the desiccation by drying fish in the sun. It is also done by salt. Canning is practised on a limited scale in Madras and Bombay. The cured fish has developed lucrative export trade with Ceylon and other countries. Fish curing yards have been established along the coasts of India. In order to develop fish industry in India on extensive scale, refrigeration system has become absolutely necessary. Cold storage facilities are being developed in every part.

VARIETIES OF FISHES—More than 1,800 distinct species of fish are known to exist in the seas around the country and the inland waters, but the varieties that are caught in appreciable quantities are limited in number. Pisciculture experts classify the commercially important varieties of sea fish into 15 groups and freshwater fish into eight.

The sea-fish groups include elasmobranchs, eels, cat fishes, silver-bar fish, herrings and anchovies, Bombay ducks, mackerels and perches, silver-bellies, pomfrets, flat fishes, mullets, Indian salmon which is stated to be not a true salmon, jew fish, crustaceans and minor shell-fishes.

Fresh water fishes are grouped under cat-fishes, mullets, carps, prawns, murrels, feather backs, eels, herrings and anchovies. Though several kinds of edible fish are obtained from fresh water sources, only a fraction of the inland water area is devoted to planned pisciculture.

Regarding fresh water fishes, carps form the most highly esteemed variety constituting about 34 per cent. such, as *Rohu*, *Catla*, *Mrigal* and *Calbaus* which are well-known throughout India. Other important varieties are cat fish, wallago, bagarious, clarius, silundia and macrones belonging to this class. Trout has been introduced into the hill streams in Kashmir, Kamaon and Nilgiri Hills.

Regarding *river fishes* the following may be specially mentioned: *Masheer* is available in the upper reaches of most rivers in India. *Chilwa* is a flat-sided, thin-bodied fish with his stomach running an edge. It occurs freely both in the north as well as in south Indian rivers. *Murrel* varies from 2 to 3 ft. in length. *Batchwa* is small but excellent for eating. *Barils* have 14 species and they are widely distributed throughout India. *Olive carp* is available in Madras and is also found in the fresh waters along the coast of India from Kutch to Bengal. *Mulley* has no scales.

Regarding *tank fishing* we have *rohu* which is met within most large-sized tanks.

FISH PRODUCTS—Besides articles of food, fish yields several byproducts, such as *fish-oil*, *fish-meal*, *fish-manure*, *fish-maws* and *shark-fins*. The most important is *fish oil*, such as, sardine oil and shark-liver oil which are now produced on commercial basis in India. The oil is used for the manufacture of paints, soft-soaps, for softening hides, for temparing steel, batching jute and after hydrogenation for the preparation of edible fats. *Fish liver oil* produces vitamins A and B indispensable for wasting diseases. It is being manufactured by the Governments of Bombay, Madras and Travancore. The Government shark-liver oil factory is situated at Koshikode, Madras which supplies shark-liver oil for use in hospitals and for sale to the public. Indian fishes such as salmons, jew fishes, cat-fishes are yielding '*Isin-glass*,' a valuable article for the clarification of wines. Bombay, the east coast of Madras and Sunderbans in Bengal are the centres of trade of this commodity. Fish-scraps are converted into *fish-meal* as additional protein food for poultry and livestock. Fish refuse is being dried as *fish-manure*.

Fish-curing is also an important supplementary trade. The chief methods of curing fish in India are sun-drying and salt curing, either by dry or wet process.

RATE OF CONSUMPTION—The average *per capita* annual consumption of fish in India is estimated at 3.98 lb. Travancore has the highest consumption of 21 lb. *per capita* a year, which comes to about one ounce *per capita* a day. Other States which consume considerable quantities of fish are West Bengal, 13 lb. *per capita* a year; Madras 12 lb, Bombay seven lb, Assam six lb. and Orissa five lb. Consumption is the lowest in the Punjab with 0.08 lb.

In the FAO surveys, India has been included in the category of low fish-consuming countries whose average *per capita* consumption falls below five kilograms. India's neighbour Burma, is among the high-consuming countries with an average of 20 kilograms *per capita.*

Nutrition experts estimate that for a balanced diet 1.3 ounces per day is required per adult i.e., 20 lb *per capita* per annum.

Approximately 92 per cent of the total production in India is used for edible purposes and eight per cent for the manufacture of industrial and other products.

FIVE-YEAR PLAN—Under the second Five-Year Plan, a sum of Rs 10 crores is to be spent by the Central and State Governments on the development of fisheries. Of this Rs 82 lakhs will be devoted to mechanization and improvement of fishing craft.

FISHERIES RESEARCH & DEVELOPMENT—The work in respect of fisheries is carried out through the Central Inland Fisheries Research Station, Barrackpur (Calcutta), the Central Marine Fisheries Research Station, Mandapam, the Deep-sea Fishing Station, Bombay and the various Fisheries Extension Units. These Stations conduct investigation on fisheries problem. There is a Fisheries Research Committee of the Union Ministry of Food and Agriculture. Considerable research on fisheries and exploratory fishing have been done by the Central Inland Fisheries Research Station in Calcutta. It has sub-stations or research units at Cuttack and Allahabad, [illegible], Gauhati and Tungabhadra. The main functions of the station are to carry out research on various aspects of fresh water and estuarine fisheries. The station also conducts a training course.

The Central Marine Fisheries Research Station, Mandapam, has research units or sub-stations at Calicut, Karwar, Bombay, Cochin, Madras, Mangalore, Waltair, Calcutta, Kandla, Quilon, Kakinada, Tuticorin and Vizimagram for conducting fishery research on sardines, mackerel, bottom fishes, prawns, and shell fish and sea weeds. The Deep-sea Fishing Station, Bombay has the main functions to determine suitable types of power craft and gear for working in Indian waters during fishing seasons and equipment best suited for the preservation, storage and distribution of fish, charting of fishing grounds. An Off-shore Fishing Unit has been opened at Cochin.

Some of the steps taken by the Government to improve fish production are mechanization of fishing crafts, training centres for fishermen, cold storage facilities, formation of deep-sea fishing stations and research at the Central Inland Fisheries Station. The Central Deep-Sea fishing Station at Bombay gives training in modern fishing methods. In Calcutta the fisheries training centre gives instructions in inland fisheries development.

CENTRAL BOARD OF FISHERIES—The Government of India has set up a Central Board of Fisheries under the Chairmanship of the Union Minister for Food and Agriculture for integration and co-ordination of fisheries research and development activities of the country. The Board will discuss at national level problems connected with fisheries research and development and recommend suitable measures for better co-ordination of this work between the Centre, States and fisheries organisation. A Standing Committee has also been constituted which will conduct the preliminary work and report on the progress made in implementing the Board's recommendations.

FOREIGN AID—Fairly generous assistance has been received from foreign assistance programmes. F.A O. has been providing technical assistance for the development of Indian fisheries. The Government of U.S.A. under their Technical Co-operation Programme have also given substantial assistance by providing equipment and technical personnel Under the Indo-Norwegian Project Co-operation Programme a Fisheries Community Development Project has been established in Kerala and is functioning successfully in improving the economics, health and sanitary conditions of the fishermen community within the Project area by introducing motorised fishing, providing ice and marketing facilities and also by improving supplies of drinking water and facilities for medical relief.

With this foreign assistance and with their own resources, the maritime States have been able to initiate programmes to help fishermen to equip their boats with engines to enable them to go further into the sea. The use of better fishing nets has also been demonstrated to impress on the fishermen the need to replace their old small nets

Progress in Kerala--The development of fishery in Kerala has been possible due to Norwegian Fisheries Development Project located in Quilon district. Norwegian Aid Scheme has been started under U. N. Organisation with the Governments of Norway and India as the parties to an agreement in 1953 The Norwegian Fisheries Development Project was really a Community Project in action being worked by Norwegians.

AQUARIA AND MUSEUMS—The main aquariam of India is *Taraporevala Aquarium*, Marine Drive, Bombay. Attached to this aquarium is the Marine Biological Research Station where facilities are available to research students for M Sc. and Ph.D. degrees. A fish farm is being established at Sasson Dock, Bombay, for conducting research on problems relating to ancillary industries like shark liver oil, gelatine, glue, fish meal, etc. There are a museum and an aquarium in Madras, which preserve specimens of all important marine and fresh water fishes, many kinds of sharks, aquatic cureos, etc. There is a small experimental aquarium of the Orissa Fisheries Department at Cuttack. A small museum exists in the Central Fisheries Research Laboratories, Lucknow.

PEARL OYSTERS—One of the important developments in the fish industry is the revival of pearl fishing by the Madras Government. Tuticorin in Madras is the centre of pearl industry in India.

There are two types of oysters—(1) window-pane oyster shell used for decorative purposes and (2) real pearl oyster. The window-pane oysters are found in open sea off Coromondal coast, Madras coast and Cochin coast. The waters of the gulf between India and Ceylon and of the Arabian sea near the edge of the Kathiawar peninsula, as well as of the Gulf of Cutch are rich in oyster beds.

TOTAL FISH CATCH
(In thousands of metric tons)

1950	826.6
1951	762.6
1952	752.0

ANIMAL HUSBANDRY

IMPORTANCE OF CATTLE IN INDIA—According to the 1956 quinquennial livestock census, there are 15.89 crore cattle, 4.48 crore buffaloes, 3 87 crore sheep and 5.66 crore goats in the country. India possesses more than one-fourth of the world's total cattle population. India is mainly an agricultural country and more than 70 per cent of her population are tillers of the soil, and from time immemorial man and cow in India have become by long association inseparable entitles. It is estimated that the annual direct contribution from our livestock by labour alone is over 1,000 crores of rupees and by manure another 1,000 crores.

Indian cattle serve two main purposes : one is the milk production and the other is the supply of bullock power for agricultural operation like ploughing, carting, and drawing of water for irrigation. But Indian cattle are of inferior quality because there is indiscriminate breeding and a majority of them do not possess characteristics of any breed. The most important problem of animal husbandry in India is the breeding improvement of cattle. The old practice of distributing stud bulls have been found to be inadequate, because the supply of farm bulls is very small and the continuity of such supplies cannot be always steady. Even the very little improvement secured through pedigree animals is offset by the existence of a large number of unapproved bulls in the area. So the main points are (1) the passing of Livestock Improvement Acts which will secure the removal of scrub bulls by castration and other measures. Most States in India have now passed such Acts. (2) The second notable instrument for the improvement of breeding of animals is the introduction in 1946 of the pilot scheme for artificial insemination, which has proved its value and has become the first item in the programme of cattle improvement. (3) Introduction of herd book system in which all the animals true to type are recorded. This will help the systematic recording of milk production and definitions of breed characteristics of the important type on more scientific lines.

The work in respect of animal husbandry is shared by the Indian Council of Agricultural Research, the Indian Veterinary Research Institute at Izatnagar and Mukteswar, the National Dairy Research Institute at Karnal and the Cattle Breeding Station at Jabalpur.

LIVESTOCK & THE INDIAN CONSTITUTION—Organisation of agriculture and animal husbandry finds a place in the Constitution of India. For in Article 48 included in the "Directive Principles of State Policy", it is directed that State shall endeavour to organise agriculture and animal husbandry on modern and scientific lines and shall, in particular, take steps for preserving and improving breeds, and prohibiting the slaughter of cows and calves and other milch and draught cattle The main emphasis of development activity in the field of Animal Husbandry continues to be on the schemes relating to key villages, gosadans, gausalas and dairying.

AII-INDIA KEY VILLAGE SCHEME—The all-India Key Village Scheme aims at an all-round development of India's cattle. The ultimate objective is to increase their yield of milk and working efficiency. Scientific methods of breeding, proper feeding, improved management, effecftive disease control and better marketing are the main features of the scheme These measures are adopted in select areas, called the key village blocks. A key village block is a compact area consisting of contiguous villages Superior pedigree bulls are assigned to such a block. While superior germ-plasma is introduced to improve the breed of cattle all undesirable bulls in the area are removed Artificial insemination is popularised in order to utilize the limited number of good bulls to the maximum advantage The animals are also vaccinated for the prevention of contagious diseases. Finally, steps are taken to increase the production of cattle feeds and folder The scheme was sanctioned in August 1952 as a part of the Five-Year Plan By the end of the First Plan period, 146 centres and 555 units had been established In the Second Plan period. it is proposed to establish 121 new key villege blocks, each with an artificial insemination centre and 6 key village units As an adjunct to the key village scheme, a calf rearing scheme has been introduced in 1954-55 A Central Artificial Insemination Station at Bangalore has been set up for the centralised collections and distribution of semen A National Plan for the eradication of rinderpest has been put into operation

Gaushalas—There is a wide scope in the country for utilizing the facilities available with private institutions, such as *Gaushalas* and individual breeders, for cattle improvement Under the new scheme, *Gaushalas* which have adequate land and livestock and are being run on organised lines will be taken up for development, which will be supplied with 10 pure-bred cows for each and a high quality bull at Government cost on condition that each agrees to provide a similar number of animals.

Gosadans—Every effort is being made to eliminate the useless and low productive types for cattle improvement. It is estimated that about 8 per cent of our cattle population are unproductive and

2 per cent are useless This large number of cattle compete with the useful ones for their feeds and fodder. They are also a source of congestion, thus helping in the quick spread of diseases They also lay waste the crops, resulting in great loss in food production. Such cattle are, therefore segregated and maintained on grazing in forests and waste lands which are not being otherwise fully utilized Such centres are called *gosadans* The primary object of *gosadans* was to transport old, useless and uneconomic cattle from urban areas to prevent further propagation of unproductive cattle by castration of all males admitted in *Gosadans* During the First Plan period 25 *gosadans* were established in different States Under the Second Plan, it is proposed to provide further *Gosadans* and establish *charmalayas* for the proper flaying and curing of hides and utilization of carcases

Gausamvardhana—A Central Council of Gausamvardhana has been formed to advise the central and State Governments on problems of improvement and development of the cattle wealth of the country and to assist the State Federations of Gaushilas and Pinjrapoles in regard to the development of these institutions on proper lines The Council also arranges for the celebration of Gausamvardhana Week throughout the country

Central Stud Farm—All-India Central Stud Farm has been started in Bangalore in 1955 by the Government of India as a part of an intensive scheme for the improvement and development of cattle in the country The farm consists of pedigree breeds from all parts of India as well as foreign breeds The pedigree breeds of this All-India Central Farm will consist of the Sindhi, Tharpar, Gir, Murrah, Ongole and Kangayam types and the Jersey from America The semen of these pedigree breeds will be available to the pilot unit centres, which will be run on the model of the key village scheme with a view to intensifying live stock development by increasing the dairy qualities of the indigenous stock, grading them up with foreign breeds.

ALL INDIA CATTLE SHOW—All India Cattle Show Committee was founded in 1938 with the object of organising periodical show Its work is being steadily increased A large number of trophies and cash prizes are awarded to the winners at all these shows with a view to provide the necessary incentive to breeders All India Cattle Breeders Conference is also organised on the occasion of the All India Show State shows are now being organised and the Government of India is subsidizing them under the Second Plan The Sales Intelligence Organisation of the Committee arranges for the purchase and export of buffaloes bulls and cows to China, Afganistan and Pakistan

DIVISION OF LIVESTOCK—Livestock is generally divided into three classes namely—(*a*) *Bovine* comprising oxen and buffaloes; (*b*) *Ovine*, comprising sheep and goats, and (*c*) *others*, comprising horses ponies, mules, donkeys camels, and pigs

SPECIES OF CATTLE There are 25 well defined breeds of cattle and six well defined breeds of buffaloes in different parts of

India, particularly the dry ones. In the eastern and southern parts where rainfall is heavy, the cattle are non-descript and do not belong to any definite breed. A few of these breeds are of the dairy type of which the females are high yielders of milk, but males are poor specimens. A large majority of the breeds are of the draught type, the bullocks being of high quality and the cows poor milkers In-between there are "dual purpose" breeds of which both the cows and bullocks are above the average Some of the best varieties are mentioned here—

(1) Some of the best *cows* in India are *Sahiwal* in Punjab and *Gir* in Saurashtra. *Red Sindhi* whose habitat is in Sind (Pakistan) has been developed in Coorg and at Government farms of Karnal, Hosur and Koila It is a milch breed cow and is one of the best and economical producers of milk

(2) The important breeds of *bullocks* are *Hissar* and *Hansi*, found in Punjab and *Nellore* in Madras *Amrit Mahal* is one of the best draught breeds found chiefly in Mysore State Bullocks of this breed are active and fast trotters *Ongole* bullocks are powerful and suitable for any work Home of this breed is Nellore and Guntur districts of Madras Other breeds are *Kanrej* in Gujarat, *Kangayam* in Madras, *Kherigarh* in Uttar Pradesh *Dungi and Nimar* in Bombay and *Harina* in Punjab The finest dual purpose animals, *i e*, best for draught as well as milk purposes are *Kanrej* and *Gir* The best breeds of *buffaloes* are *Murrah* in Punjab, *Jafferbadi* in Saurashtra and *Mehasana*, *Surati* and *Pandharpuri* in Bombay These nine breeds of cattle from all parts of India are of first rate importance —

Sindhi—This breed hails from Sind, but several pedigree herds of it have been established in India, particularly in Kathiawar on the West Coast It is a distinctive dairy animal.

Sahiwal—Though originally belonged to central undivided Punjab, it is available in Karnal, Uttar Pradesh and Madhya Pradesh.

Harina—The home of this breed is the area covered by the districts of Rohtak, Hissar, Gurgaon, part of Karnal and the Delhi State. This breed is also produced in more or less pure form in Jind, Nabha, Patiala, Jaipur, Jodhpur, Loharu, Alwar, Bharatpur and in East Uttar Pradesh

Murrah—The cows of this breed are good milker and the bullocks are excellent for draught It is available in Southern Punjab, Delhi and Northern Uttar Pradesh

Gir—The home of this breed is Kathiawar. Pure specimen of this breed is available in Junagadh

Kankrej—The home of this breed is the country to the south-east of the Rann of Kutch, extending from the south west corner of the Tharparkar district in Sind to Dholka in Ahmedabad district, also along the Banas and Saraswati rivers It is one of the heaviest of Indian cattle.

Tharparkar—Coming originally from the arid semi-desert tracts of south-east Sind, this breed is mostly bred in India today in the north-east portion of Bombay State as well as Marwar.

Kangayam—The name of this breed is derived from the Kangayam division of Coimbatore district, where it has been in existence for a long time.

Ongole—The home of this breed is Ongole tract of the Madras Presidency, comprising Ongole, Guntur, Narasaraopet, parts of Bapatla, etc.

It is a significant fact that good cattle are generally found in dry areas and inferior cattle in areas of heavy rainfall. The rainfall map of India more or less coincides with her cattle map.

Sheep—Another cattle wealth of India is sheep and goat. Their distribution is widely divergent—mainly dependent upon the climatic conditions, the number being smaller in heavy rainfall areas and greater in light rainfall areas. The sheep are of mutton variety and of the woolly type. The wool which is one of the main products of the sheep-breeding industry, holds eighth position amongst the agricultural commodities in the country's export trade. The sheep do not only provide wool, but also mutton, manure, pelts, hair, milk, butter and serve as pack animals to carry essential food-grains from their owners across the precipitious hills, where other systems of transport would perhaps fail.

There are about 14 breeds of sheep in India, which can be divided into two distinct types, namely, woolly and hairy. The woolly types produce wool fibres of fine or coarse quality, while the other just produce hair and are reared for manurial purposes and for providing mutton.

The carpet wool produced in India is classified in the world markets as East Indian type of wool and is sold under well-known names of Joria and Vinanere. The Bikaneri breed hailing from the desert of Bikaner is the hardiest breed known in India. This breed is becoming a cosmopolitan breed of India and is being introduced in different States. The fact that India is one of the main producers of carpet wool, need not leave an erroneous impression that India produces only this wool. This country also produces large quantities of fine wool, specially in the hills of the Punjab, Uttar Pradesh and Kashmir. There are several types of hill-sheep along the Himalayan ranges which produce fine wool, such as Gurez, Karnah, Bhadaswah, and Rampur Busher. The story of Indian hill-sheep will remain incomplete without the mention of Pashmina goat coming from Ladakh, Kashmir. This goat produces the finest wool in the world, known as *Pasham*. We have also Tibetan sheep coming to Indian Hills in summer. Marino sheep are being introduced in our hill areas to improve the local sheep.

The wool-producing States are Punjab, U.P., Rajasthan. The average production of wool per sheep in India is 1.9 lb. The annual production of wool of Indian sheep is very poor when compared to that of other countries. The wool produced in India is also of much inferior quality. As an exception, the Kashmir goats are famous for fineness of their wool. There are some good sheep in parts of India like the Bikaner rams which are woolly types.

Sheep form an important part of the livestock wealth of India, their number is four crores. Out of the annual production of

60 million pound of wool, about half is exported. In addition, sale of surplus sheep to the meat market brings Rs. 30 crores annually. Besides, sheepskins in raw form earn Rs. 6 crores worth of foreign exchange for the country every year. Sheep manure is a very good soil fertilizer. India has three sheep-breeding regions—Himalayan region, Indo-Gangetic plain and the Deccan Plateau. The first is an important sheep-rearing area, the second produces the major portion of the wool clip. The third has two types of sheep —one which yields a clip and the other reared for meat production. The quality of wool is inferior because the fleeces are hairy and course. Indian Council of Agricultural Research launched pilot projects at the Livestock Farm, Hissar and at Poona. At the same time experimental flocks are maintained in livestock farms in Mysore and Madras States. Rearing of imported sheep was also started in Kashmir State. Eight sheep-breeding research stations have been set up at Pipalkoti (Garhwal District), Banihal (Kashmir), Saraban (Himachal Pradesh), Sardarshahr (Rajasthan), Patan (Bombay State, Poona), Kurukuppi (Mysore) and Salem and Chingleput (Madras).

Goat is also the principal source of meat supply in the country. The important varieties of goat are—Jamnapuri type of the Deccan Plateau, the Surti of West India and the black and white bearded variety of Bengal, Ganjam, and Telingani varieties.

India's *goats* number about 58 millions. Goats are prized for their meat and milk. Goat contributes only 3 p.c. of the total milk supply of India.

India's *pigs* belong to two principal species, namely, Indian wild boar found throughout India and pigmy hog in the forests at the base of the Himalayas in Nepal, Sikkim and Bhutan. Pig are useful for bristles, lard, meat (pork, ham, bacon) and skin.

Horses are mainly used for transport. The Kathiawar breed of horses known as *kathi* is famous for its great power and endurance. The Marhatta pony, the little *Gujarat* and *Dhanthadi* of the Deccan are also famous. The ponies of Manipur are regarded as the best in India. Bhutia pony is also famous for the power of endurance and weight-carrying capacity.

Cattle Disease—Four lakhs of cattle die annually of rinderpest in India. Besides, those animals which survive, become less efficient for work and milk production. As a result of researches conducted at the Indian Veterinary Research Institute, Izatnagar and elsewhere, vaccines have been evolved to make them immune from the disease. During the first Five-Year Plan, a sum of Rs. 15.7 lakhs was provided for the eradication of rinderpest. In 1954 the Central Rinderpest Control Committee was also set up and in October 1954 a pilot project was initiated in Bombay, Hyderabad, Andhra, Mysore, Madras and Kerala. Production centres of vaccines have been established in Uttar Pradesh, West Bengal, Madras, Madhya Pradesh and Punjab and at the Indian Veterinary Research Institute, Izatnagar. Steps have been taken through F. A. O. to co-ordinate the activities of rinderpest control in the neighbouring countries of Pakistan, Nepal, Burma, Afghanistan and Ceylon.

There is a *Central Rinderpest Control Committee* which has drawn up tentative scheme for eradicating rinderpest which kills 400,000 animals a year.

MILK PRODUCTION & SUPPLY—Ill-bred, ill-fed and ill-maintained as our cattle are today, the return from them is less than the amount expected. The yield of milk, particularly of cows, is very low in India. Our annual production of milk is about 4,684.59 lakh maunds. This comes to 4.77 ounces per head per day against the required minimum of 10 ounces from the nutritional point of view. In this respect India has the lowest figure in the world as this statistics will show--

		Per cow per annum			*Per cow per annum*
India	..	30 gallons	Sweden	..	326 gallons
Belgium	..	362 „	Switzerland	..	380 „
Denmark	..	387 „	Finland	..	344 „
Netherlands	..	373 „			

POULTRY—Poultry include those domesticated birds which reproduce freely and are of economic importance to man. They embrace chickens, turkeys, ducks, geese, guinea fowl, pigeons, pea fowl, etc. The most important of them is chicken. India's total poultry population according to 1956 census is about 97 million including ducks, of these about 36 million birds are hens whose laying capacity is, on the average, about 53 eggs per bird per year. This is very low compared to the world average of about 120 eggs. The important poultry-producing areas are Madras (25.2%), West Bengal (12.6%), Bihar (11.2%), Assam (8.9%), Bombay (8.5%), Madhya Pradesh (6%). The per capita consumption per year of poultry meat in India is as low as 0.29 lb. as against 29.32 lb. in U.S.A., 20.91 lb. in Canada, and 13.23 lb. in France.

Fowls—Domestic fowls of India may be divided into two broad groups—*desi* and improved or exotic. The term *desi* means all indigenous fowls and are generally not of pure breed because of the promiscuous multiplication. The imported (exotic) breeds which have been acclimatised in India are mostly white Leghorn and Rhade Island Red. Small number of other breeds are Black Minorca, Plymouth Rock, Australorp, New Hamphire, Light Sussex, Brown Leghorn, etc. The total number of imported varieties in the country constitutes only about 1.4 per cent of the entire poultry population.

Ducks—It has been estimated that India has approximately 16 million *ducks*, representing 18 per cent of the domesticated duck population of the world. Madras and Bengal account for more than 75 per cent of ducks in India. The average annual egg production of the Indian duck is 90 to 100. Ducks are hardy and are free from contagious diseases. The birds are largely reared in the eastern and southern parts of the country, where there is abundant supply of water.

Poultry Development—In 1938 a poultry research division was established at the Indian Veterinary Research Institute, Izatnagar, which is a landmark in the development of poultry in India. This Institute evolved a suitable vaccine against Ranikhet disease and fowlpox. Efforts have been made at the Institute for the improvement of indigenous birds by selective breeding and crossing. Indian Council of Agricultural Research sponsored and subsidised development and research schemes on poultry in several of the States under the Grow More Food Campaign. An all-India scheme for the development of poultry has been sanctioned for the Second Plan period at an estimated cost of Rs. 258 4 lakhs. It envisages the establishment of five regional farms and 300 extension centres-cum-development blocks throughout the country. Poultry shows will be held annually. A Poultry Development Officer has been appointed at the Centre to secure the implementation of the All-India Poultry Development Scheme.

ANIMAL PRODUCTS—Besides animal products of milk and wool, the principal animal products of India are blood, bones, ivory, tallow, and hides and skins. Bones are used as manure and for the manufacture of buttons, handles, toys, glue and are a source of superphosphates. Supply of horns comes from U.P., Punjab, Madras and Bengal. Buttons, toys, manure, glue, gelatine, etc., are made by horns. Ivory is used for the manufacture of ivory goods, bones and teeth. This supply comes from Assam, Western Ghats and Mysore. Tallow is derived from the fat of beef, mutton and goats. Its printing uses are as an adulterant, lubricant, and illuminant and it is also used in the manufacture of soaps and candles.

There is considerable export and trade in livestock products, while dairy products, such as condensed milk and cream, milk foods for infants and invalids, butter and cheese, comprise the main imports. Bones and horns are exported. At the same time, there is a two-way trade in hides, skins and wool.

PROVINCIAL DISTRIBUTION—The largest number of oxen are found in Uttar Pradesh which possess 23.0 million heads or nearly 14 p.c. of the total for the country. This is closely followed by Bengal, where there are nearly 22.6 million oxen or approximately 13·6 p.c.; Madras 9·6 p.c. of the total. For Buffaloes: U.P.—9·9 million or 29 p.c.; Punjab—6·92 million or 13·2 p.c.; Madras—6·1 million or 13 p.c.; Bengal—1·1 million or 2·3 p.c. of total buffaloes in India.

The densities of oxen per 10 acres of cultivated area, per 100 persons and per square mile of the country as a whole are 4343 and 106 heads respectively. The all-India average density of buffaloes works out to 12, 12 and 30 respectively.

TRADE IN CATTLE—Bengal is the principal importer, followed by Bombay, U.P. and Bihar. The main exporting provinces in order of merit are Punjab, Bihar and Orissa.

LIVESTOCK & POULTRY CENSUS

(*Livestock and Poultry in lakhs*)

A.—Livestock	1956	1951
1. Cattle		
(*a*) Males over 3 years ..	642	618
(*b*) Females over 3 years	497	498
(*c*) Young stock	450	495
Total Cattle	1,589	1,551
2. Buffaloes		
(*a*) Males over 3 years ..	63	68
(*b*) Females over 3 years	223	219
(*c*) Young stock	162	147
Total Buffaloes	448	434
3. Sheep ..	387	388
4. Goats ..	566	471
5. Horses & Ponies	15	15
6. Other livestock	66	63
Total livestock	3,071	2,922
B.—Poultry ..	974	434

C. AGRICULTURAL MACHINERY

(*In thousands*)

	1956	1951
1. Ploughs	36,548	31,780
2. Carts	10,707	9,863
3. Sugar crushers		
(b) worked by power	21	21
(a) worked by bullocks	548	520
4. Oil Engines	113	95
5. Electric Pumps (for irrigation)	55	30
6. Tractors (for agriculture)	18	8
7. Ghanies		
(a) 5 seers & more	93	242
(b) Less than 5 Seers	202	204

(*Monthly Abstract of Statistics, August, 1958*).

FORESTS IN INDIA

FOREST WEALTH OF INDIA—The forests in India play an important part in country's agricultural and economic development. The forests cover 2.81 lakh sq. miles, which is about 22.2 per cent of the total area of the country. Of the four forest regions, Madhya Pradesh, Assam, Tripura, Kerala and Mysore have the richest forest areas in the country. In Tripura nearly 60 per cent of the total area are under forests, while in Assam more than 44 per cent are forest area. The per capita forest area of 0.2 hectare is, however, very low as compared to countries like U.S.S.R. and the U.S.A. with per capita forest area of 3.5 hectares and 1.8 hectares respectively. India's per capita consumption of round wood is 1.4 cubic feet as compared to 58 cubic feet in the United States and the consumption of pulp products 1.6 lb. as against 78 lb. in the United Kingdom. The forest area is also unevenly distributed in the country. The Forest Policy Resolution of May 12, 1952, therefore suggested that India as a whole should aim at maintaining one-third of its total land area under forests, proportion being 60 per cent in the Himalayas, Deccan and other mountainous tracts and 20 per cent in the plains. They provide employment for nearly a million people. The role of forests in conditioning the weather, in preventing the erosion of soil and, in short, in maintaining the physical condition is not yet fully appreciated. India contains an infinite variety of types of forest vegetation, governed by the variations in climate, soil elevation and other local factors. The forests of India are a source of considerable wealth. They yield valuable timber. Our railway system leans heavily on Indian timber; paper, plywood, bobbins, match industries depend on timber resources. The forests also yield large quantities of fuel. The variety and abundance of Indian economic forest products are perhaps unequalled in any other similar area in the world. Teak, sal, deodar, chir and sheesham and many varieties of useful timber come from forests. Besides providing timber, fuel and fodder, forests yield medicinal herbs and raw materials for the manufacture of paper, matches, rubber, resin and terpentine.

Following closely on the climatic and geographical variations, we have a great variety of forests in our country. Heavy rainfall tracts have thick evergreen forests. The regions with moderate rainfall support moist deciduous forests in which a few but very valuable varieties grow, including the very important teak of the South and *Sal* of the North. Dry deciduous forests and thorn forests are all that areas of low rainfall can support.

FOREST TYPES OF INDIA—are divided into five types—(1) *Evergreen,* (2) *Deciduous,* (3) *Dry,* (4) *Hill,* (5) *Tidal or Littoral.* *Evergreen* flourishes where rainfall is 80" to 120". Such regions are the West Coast of the Peninsula and the

Eastern Sub-Himalayan tract. These forests include many species of great economic value, such as ebony, teak, rosewood, ironwood, bamboos, neem and tamarind. *Deciduous* (rainful 60" to 80") occupies the larger part of the Deccan and is also known as monsoon forests. The trees are large-sized and form very remarkable timbers, such as, teak, sal, paduk, redwood, sandal wood, anjan, etc. *The Dry forests* (rainfall 30" to 40") are found in the desert regions of Rajasthan and the Punjab and the plants are characterised by thick and fleshy stems and leaves and mostly consist of thickets of shrubs and a few stunted trees; many of them are leafless. *The Hill forests* are found in South India above 5,000 feet and in the Himalayas above 3,000 feet altitude. The trees are evergreen, of which the following are the most prominent—oak, picca, deodar, pines, firs, chestnut, walnut, maple, elm ash, birches, laurels, poplar, rhododendron and spices of abies. *The Littoral forests* are found in the deltas of the Ganges, the Mahanadi, the Indus and also to some extent in the regions washed by the high tide and salt water. They are rich sources of fuel. These forests are known as Mangrove Forests.

NATIONAL FOREST POLICY—The national forest policy of India known a *Forest Policy Resolution* was enunciated in 1952. Among the landmarks of the new policy is the recognition of the intrinsic right of forests to a permanent and adequate share of land. So an indication has been provided of the proportion of land which should be permanently maintained under forests. This naturally varies with the configuration of the ground and rainfall. Thus, while in the flat Indo-Gangetic plain where slope is imperceptible and erosion is not a serious problem, the average proportion of forest land to be reserved need not be more than 20 p.c. of the total land area; in the mountainous tracts, with higher rainfall, a much greater area (about 60 p.c.) must be maintained under forest growth. This means that India as a whole should aim at maintaining one-third of its total land area under forests, the proportion being 60 p.c. in the Himalayan, Deccan and other mountainous tracts and 20 p.c. in the plains. The new policy directs pointed attention towards reconditioning of hills and dales, the immobilization of the Rajasthan desert, the prevention of the encroachment of sea-sands on coastal tracts, the rationalization of shifting cultivation and control of soil erosion in general. The policy legislates for the functional classification of forests, such as "protection," "national" and 'village' forests.

CLASSIFICATION OF FORESTS—Forests in India are classified according to—(*a*) Ownership, (*b*) Legal status, (*c*) Composition. From the ownership point of view, forest area is divided into, (*i*) States, (*ii*) Communal and (*iii*) Private. The forests owned by State Forest Departments comprise nearly 95.4 p.c. of the total forest area, *viz.*, 269,915 sq. miles. The Communal and Private forests are now only 4.6 p.c. of the total forest area.

From the administrative point of view, forests have been classified into *Reserved and Protected and Unclassified.* The first category is reserved for Government use and no entry is allowed to any member of the public. The protected forests are under the control of the Department, but contracts for their exploitation are given and the public are allowed to make use of them within the terms of the contract. The Unclassified forests consist of shrubs and trees in villages. They are not under the control of the Department.

From the point of view of outturn, forests are classified into coniferous and non-coniferous. In India, forests are mostly non-coniferous or broad leaves. This is natural in a tropical country. On the hilly parts of the country, however, coniferous and in the valleys and terai areas mixed types of forests grow.

From the point view of the outturn, forests are classified into *Merchantable* and *Inaccessible* (unprofitable). The Merchantable forests constitute 73.1 p.c. of the total forest areas, 55.1 p.c. being Reserved and Protected. Nearly 68,000 sq. miles or 26.9 p.c. are inaccessible and, therefore, unprofitable.

CENTRAL BOARD OF FORESTRY—The Government of India have constituted a Central Board of Forestry in 1950 for the purpose of evolving an all-India policy to increase the area under forests. The functions of the Board are—(1) Co-ordination and integration of the forest policy pursued by States in the management of their forests, (2) adoption of conservation measures affecting forests resources and soil, (3) integration of plans for land use and national reconstruction in which forestry has come to play a progressively important role, (4) promotion of legislation considered necessary for various States for the management of private forests, (5) regulation and development of forests in inter-state river valleys which are the concern of the Central Government, (6) maintenance of adequate standards for training of officers, (7) co-ordination of forest researches conducted in Central and State institutes and (8) any other matters affecting forestry, relevant to the objective of the Board.

CENTRAL ADVISORY BOARD OF FOREST UTILIZATION.—This Board was set up by the Government of India in 1939 and re-constituted in 1949 to give representation to industry, agriculture and consumer interests, and meets once in five years. Its function includes assigning of priorities to research schemes conducted by F. R. I. and co-ordinating research with the needs of the industry, agriculture and general public.

AFFORESTATION & SOIL CONSERVATION—Forests must be planted and reared continually so as to protect the land from the ravages of erosion, to refertilize the soil, to arrest aridity and modify the climate. Reafforestation is necessary to provide cheap fuel and fodder, new grazing lands, beautiful landscapes, etc. Culturable Government land should be afforested by the Forest Department.

Government can assist by supplying seeds or saplings and give expert advice. Over-grazing, field cultivation and deforestation are the main causes of denudation of thousands of acres of uncultivated land. State Forest Department should take remedial measures, such as, contour trenching of fields, silt catching, building dams and planting trees as well as rotational grazing schemes. In certain

areas, steps should be taken for controlling pine tapping for resin extraction to ensure that trees are not killed and the ground is not exposed to heavy fellings. The work on the reclamation of waste lands and control of floods should be taken in hand at once. Canal plantation should be laid out by the Irrigation Department. Nurseries for growing and distributing saplings, fodder trees should be established.

The Government have already undertaken the following measures for the progress of afforesation in India—(1) A scheme for checking the spread of the Rajasthan desert by means of planting trees on the present boundaries has already been drawn up. (2) From July 1950 a campaign for planting new trees, *Vana Mahotsava,* has been launched. It has become an annual national festival and has given a great fillip to afforestation.

SOIL CONSERVATION—The Central Soil Conservation Board has started functioning from 1953 for systematic soil conservation work. It undertakes soil analysis and combats soil erosion. It is responsible for organising, co-ordinating and initiating research in soil conservation and imparting training to nominees of different State Governments in soil conservation work. The Board is running nine research centres located at Dehra Dun, Ootacamund, Vasad, Kotah, Jodhpur, Chandigarh, Agra, Bellary and chhatras but of these, the first four are also Training and Demonstration Centres.

ADMINISTRATIVE SET-UP—Under the Constitution, the jurisdiction over forests vests in the States (Item No 19, List II of the Seventh Schedule). The revenue from these is derived from the sale of timber, fuel, bamboo, fodder grass and other minor products, such as, lac, tanning materials, gums, resins, medicinal herbs, etc. It also includes fees for grazing and the proceeds of the sale of confiscated drift and wind wood. Expenditure on the management and collection of forest revenue is debited to the expenditure head "Forest"; Forest Department is treated as a commercial department and the interest on capital outlay is debited to it. Most of the capital expenditure is, however, met out of current revenue.

The forest administration of the Government of India is carried on in their Department of Agriculture. The Inspector-General of Forests is the technical adviser to the Government in forest matters. Forests are, however, a provincial subject. For the purpose of administration, the States are divided into one or more Forest Circles, each in charge of a Conservator of Forests; while in those States where three or more forest circles exist, there is also a Chief Conservator who is the head of the Department of his State. Circles are divided into a number of Forest Divisions, in charge of members of the Superior Forest Service. Each Division contains a number of Ranges, in charge of Forest Rangers or Deputy Rangers; heevy Divisions are also sometimes divided into sub-divisions. The Ranges are sub-divided into a number of rounds and beats.

FIVE-YEAR PLAN—In the Second Plan, Rs. 27 crores has been provided for forestry schemes which aim at the rehabilitation of about 3.8 lakh acres of degraded forests and plantation of 50,000 acres with important commercial species like teak, 13,000 acres with wattle and blue gum and 2,000 acres with medicinal plants. Another 50,000 acres are to be brought under matchwood plantations. The programme also provides for the adoption of better techniques of timber extraction, establishment of timber treating and seasoning plants and organisation of surveys of forest resources.

FOREST EDUCATION AND RESEARCH—The scientific forest management in India owes its inception of Dr. Brandis, professor of Bombay from the University of Bonn, who was engaged by the Government of India in 1856 as Superintendent of teak forests in Burma. Later in 1864, he was appointed first Inspector-General of Forests in India. It was a result of his initiative that Forest Departments were organised throughout India.

The nucleus of forest research and education in India is traceable to a forest school, started in 1878 in Dehra Dun under the auspices of the Survey of India. The school enjoys the distinction of being first of its kind in British Commonwealth. By 1906 this institution became the nucleus around which the existing organisations of the Forest Research Institute and Colleges have been built up.

Primarily the work of the Forest Research Institute is researches into problems connected with rearing and protecting India's forests and enhancing their value and usefulness, and secondly the more efficient and profitable utilisation of timber and various other produce of these forests. Four excellent museums are maintained by the Institute. Of the four museums, one is known as the timber museum which is devoted to a display of the great variety of India's timbers in the form of polished and unpolished boards. It also contains demonstration models of wood seasoning, wood preserving and timber testing installations. The second museum is arranged to indicate the infinite range of India's forest products and to indicate the methods of their extraction and utilisation. The third museum houses large scale models to demonstrate silvicultural practices and the evils of soil erosion. The fourth museum draws attention to the extent of insect damage to Indian trees and the timber.

The following is the brief account of the activities of the Forest Research Institute—(1) *Silviculture,* (2) *Botany,* (3) *Mycology,* (4) *Forest Entomology,* (5) *Wood Anatomy,* (6) *Wood Seasoning,* (7) *Wood Preservation,* (8) *Coposite Wood,* (9) *Timber Mechanics,* (10) *Cellulose and paper,* (11) *Chemistry of Forest and minor Forest Products,* (12) *Statistical,* (13) *Publicity and Liaison.*

The *Indian Forest College* at Dehra Dun was originally started in 1926 for training I. F. S. officers, but was closed after 1932 and was restarted for training for Superior Forest Service officers in the Provincial Forest Service. The College is housed in the Forest Research Institute building and well-equipped with lecture and common rooms and biological and chemical laboratories. The course covers two years only. Those students are admitted who are deputed by a State and are assured of employment on completion of the course. In view of the great demand for admission, the Government of India took over the *Coimbatore Forest College* in 1948, which has been greatly expanded now.

Indian Forest Rangers College, formerly known as the Forest School, is also situated in Dehra Dun. The course lasts for two years. Another forest institute has been started at Bangalore, the first institution in India outside Dehra Dun.

INDIA'S FOREST PRODUCES AND USES—India has 3,000 species of economic plants, besides a number of animal products. Apart from timber for structural purposes and fuel, forests supply wood from which an increasing variety of things are made today. Acetic acid, acetone, methyll alcohol, certain oils and creosote are some of the derivatives of wood. We may mention also valuable timber species, such as conifers (*pines, firs, deodars*), the principal species of the sub-tropical zone ; and the well-known *teak* which is met with throughout the Deccan plateau. The chief among other species of commercial importance are *dipterocarpus, acacias, sissoo, sandalwood* and *bamboos*. The forests, in addition, yield a bewildering variety of minor forest products which are utilised in indigenous medicine and industry. The various plants and their derivatives account for items, such as, essential oils, resin, gums, medicinal herbs, fatty oils, vegetable dyes, tans, soap-berries, fibres, flooses, edible wild plants, canes, grasses. This is not all. Animal products, such as, honey, beewax. lac, bones, hidles and horns, play an important part in the home market and abroad. Out-turn of produce of Indian forests is of two kinds : (1) *Major produce* consisting of timber and firewood and (2) *Minor products* consisting of medicinal plants, essential oils, resins. fatty oils and fats, waxes, starches, gums, mucilages, tans, dyes, bamboos, canes, fibres, flosses and grasses, animal products like honey, lac, ivory and beewax and materials for packing and wrapping.

DESCRIPTION OF FOREST PRODUCTS—*Oil trees* are Chandan or Sandalwood, found in Southern India (Mysore, Coorg, Western Ghats, Nilgiris). It is a hard, close grained, yellowish brown wood, strongly scented by the oil. It makes beautiful carved boxes and small articles. The oil is also extracted from the seeds and nuts of various other trees, such as ***Chalmugra, Satinwood, Croton, Coconut, Palm, Pine, Deodar, Kusum, Neem, Mahua, Garjan.***

The gum and resin yielding trees of India are ***Babul. Catechu, Sal, Pine, Mango*** and ***Banyan. Asofoedita*** or ***hing*** is available in Kashmir only.

Sal is one of the most important timber trees of India and very hard, heavy and tough wood with reddish brown colour. It is a large tree with glossy foliage and grows freely in the Northern and Central Indian regions. The wood is largely used for building construction and railway sleepers.

Teak (*Sagun*) is a large deciduous tree with grey bark which peels off easily, grown mainly in the frost-free parts of India and is a strong wood of great durability. It has long rough leaves and small oval fruit with a stone in it. It is immune from attacks of white ants and insects for very long periods. It grows in the Deccan plateau in Madhya Pradesh, Orissa, Bihar, Bombay and Madras. It does not corrode iron. Consequently for anything in which wood and iron (nails) have to be used, teak is given the first preference. It is mainly used for boat and ship-building, railway carriages and sleepers, tool handles and furniture, etc. Other minor uses are the extraction of tar for medical purposes and the leaves are given to the tasar silk-worm.

Jarul has mauve flowers. It bears fruits in a woody capsule about one inch long. Timber of Jarul is used in Assam and Burma for building boats and cart wheels. It is also planted for the beauty of its flowers.

Arjun is heavier and harder wood than teak. It grows all over the deciduous region.

Kusum is a very heavy, hard and tough wood. It grows in the deciduous forests. 'Lac' insects are also reared on it.

Ebony is a very dark green or greenish black wood of great strength. It is obtained all over the deciduous regions excepting N.E. parts.

Siris is found all over India and is a popular choice for a roadside tree, because it grows quickly and rises to its full height within a few years. It has a very short life as insects find its wood wholesome and destroy it. The distinctive features of Siris are its large pods which hang on the tree when it has been stripped of its leaves. It has also rounded brush-like flowers of a greenish yellow colour which have a delightful fragrance. The wood of Siris is not much used in India but substantial quantities are exported to Europe, where it is used for furniture as a substitute for walnut.

Palas is important for its crop of 'lac' insects. It grows largely in Chotanagpur and also over the plains of northern India.

Mahua is very common in Chotanagpur area. Its flowers are important articles of food. A course spirit is distilled from Mahua.

Semul is well-known for the cotton it yields. Its wood is very soft and perishable and is suitable for matchbox manufacture.

Jarool is of medium strength and is employed for making cheap classes of furniture. It is found mainly in Assam, West Bengal, and is also found in Chotanagpur.

Deodar or Himalayan cedar is the most important timber tree of the Western Himalayas. It grows from 100 to 200 feet in height. The wood is moderately hard, scented, oily and very durable. It is used for building construction, particularly for doors and windows.

Pine—The Blue Pine or *Kail* as it is popularly known is a large ever-green conifer with bluish feathery foliage. It often reaches 120 ft. in height and is found throughout the temperate Himalayan region at altitudes ranging from 6,000 to 10.000 feet. The heartwood is of good quality and frequently used in general carpentry and furniture.

Shisham (*Sissoo*) is a large deciduous tree which grows near river banks from Punjab to Assam. It is a favourite road-side tree and is easily grown. The sap-wood is perishable but the heartwood is heavy, hard and durable. It is largely used for furniture. It also makes lasting carts, boats and wheel spokes.

Toon—A handsome fast-growing big tree with many uses growing in moist localities throughout India, often reaching a height of 80 feet with a girth of 10 feet. The bark of the toon is used to make medicine and the flowers to make a yellow dye. The wood is excellent for furniture, as it is light and hard and takes polish very well on its red grain.

Oak is available in Eastern Himalayas, Khasi Hills and Manipur. It is used for buildings, agricultural implements, axe-handles.

Rosewood is found in various places from Nepal to Travancore. It is used extensively for furniture, cabinet-work, keels of vessels, agricultural implements, combs, ornamental articles, finely carved chairs and tables.

Satinwood is found in the dry forests of Circars, Konkan, Deccan and Karnatak and is common in Satpura range. It is largely used for cabinet work, picture frames, furniture, etc.

Fir is grown in outer Himalayas, the Punjab and Kashmir and is used for packing cases, crates, shingles, boards and paper pulp.

Babul tree grows in Western India and is used for all forms of agricultural implements.

Sundri is available in the deltaic regions of Bengal, particularly in the Sunderbans and in the coasts of Orissa. It is a very hard wood.

Canes and Bamboos are extensively found in Eastern Nepal, Sikkim, Bhutan, Assam, Bengal, Madhya Pradesh, Deccan, Konkan and Coromandal Coast. Bamboos grow everywhere in India. It has numerous varieties, from giant bamboo of Assam to dwarfs of dry region. It is used for paper-making and for other various objects. Cane is used for basket works, mats, walking sticks, ropes and in the manufacture of paper.

Grasses are generally used for fodder for the cattle. *Sabai* grass is used for paper-making. *Munjh* grass growing in all parts of India and specially in the Punjab is used for thatching, paper-making, chairs, baskets, ropes and cordage. *Rhea* grass found in Assam and Bengal is used for belting, sheeting, lace, net, cordage, sacking, etc.

Lac is an important Indian forest product. It is produced from an insect which secretes its larvae on certain class of trees. These trees are palas, peepul and kusum. Lac is produced throughout the warm tropical areas of the whole of India. The principal places of production are M.P., Bihar, Bengal, Assam, and Gujarat. Chotanagpur in Bihar raises 60 per cent of India's total. Lac is extensively used in the manufacture of gramophone records, plastics, lacquer work, mouldings of ornaments, paint and varnishes, sealing wax, etc. Only 2 per cent of the production is consumed in India, as the rest is exported.

Bee Wax and Honey are also important forest products. Bee wax is used in candles, foundry moulding, calico printing and medicine. It is largely used by the shoemakers of India.

Gums and Resins—Gum and resin yielding trees in India are *Babul*, *Catechu*, *Sal*, *Pine*, *Mango* and *Banyan* and are worked for making resin and turpentine oil. Resin is used for shellac adulteration, in paper mills, soap factories, etc., while turpentine has demand for medicine and varnish.

Tanning materials—Various tanning materials are found from Indian forests, most important of which is myrobalan. Myrobalon grows in abundance in Madras, Bombay, West Bengal, Chotanagpur, Orissa and other places. Myrobalan is a great tanning material. The alkali of myrobalan is useful for preparing different dyes by mixing with various ingredients.

Sandalwood is used for producing sandalwood oil and from oil soaps and scents are made. At present Mysore and Kerala supply all the sandalwood needed by the world. In Mysore alone, the annual yield is about 2500—3000 tons. Sandalwood is the exclusive monopoly of the State, both in Kerala and in Mysore.

AREA OF FORESTS
(1953-54)

	Sq. m.		*Sq. m.*
Reserved ..	135,801	Unclassified	82,898
Protected ..	61,689	Total	280,388

FOREST AREAS OF STATES & TERRITORIES, 1953-54
Reporting area : (*In thousands of Acres*)

Andhra Pradesh ..	12,302	Delhi ..	—
Assam ..	15,797	Himachal Pradesh ..	400
Bihar .	8,811	Manipur ..	37
Bombay .	15,629	Tripura ..	1,574
Kerala ..	2,460	Andaman & Nicobar Islands ..	34
Madhya Pradesh .	33,617	Laccadive, Minicoy & Amindivi Islands ..	—
Madras .	4,757	*Total* ..	128.024
Mysore ..	6,413		
Orissa ..	10,125		
Punjab ..	831		
Rajasthan ..	3,260		
Uttar Pradesh ..	8,479		
West Bengal ..	2,088		
Jammu & Kashmir ..	1,380		

DAIRY FARMING

MILK PRODUCTION IN INDIA—Dairying like agriculture is one of the basic industries of India, and milk and milk products contribute no less than Rs. 620 crores to the national divident—almost as much as all the factory establishments put together. The huge quantity of about 1,500,000 maunds of milk produced per day in the country, is obtained from about 67,000,000 cows and buffaloes maintained in nearly 40,000,000 small fragmented holdings throughout the country.

The Planning Commission correctly holds that despite the fact that milk is a very important food for a country like India with a very large vegetarian population and the existence of a large number of milch cattle in the country, dairying which can provide ample scope of fruitful whole-time and part time employment to the unemployed and under-employed millions thronging the countryside, has been in a backward condition simply for the fact that it has not received the attention it deserves. Poor quality cattle, insufficiency of feed and fodder, high incidence of disease and lack of organised production, improper handling of milk and milk products are problems that require urgent solution. The Planning Commission opined "the improvement of cattle depends primarily upon proper policy and programme for breeding and feeding" and suggested the introduction of schemes for key villages—*Gosadan*, artificial insemination centres and the use of oil cakes, bone dust and fish meal as cattle food.

MILK ADULTERATION—The Agricultural Marketing Adviser to the Government of India says in his report of 1950 that "adulteration of foodstuffs, including milk, is not uncommon in Western countries, but the position is nowhere as bad as in our country. Adulteration is so widespread that consumers have become almost indifferent to quality."

Legal standards prescribed under State Food Adulteration Acts are lower than the constants for locally produced pure milk and therefore leave room for 'legalized' adulteration with water or skimmed milk. There is a strong feeling in the country that official control of the quality of market milk has been very lax.

The enforcement of the Food Administration Acts, which rests entirely in the hands of the municipal authorities, has been most unsatisfactory. The municipal authorities have therefore been urged to be more vigilant in the matter of quality control of milk and dairy products.

POOR YIELD—The average annual yield of milk per cow in India is 413 lb. which is about the lowest in the world, as compared to 8,000 lb. in the Netherlands, 7,000 lb. in Australia, 6,000 lb. in Sweden and over 5,000 lb. in the U.S.A. The following table gives the maximum annual yields of world's finest dairybreeds :—

The daily average quantity of milk available per head in India is about 5.8 oz ; quite a few do not get any milk at all or even any milk products. In some cities the average quantity of milk consumed per person is not even one ounce a day.

As compared to this situation, the daily average production per head in New Zealand is 244 oz., 148 oz. in Denmark, 37 oz. in U.S.A. and 140 oz. in Britain. The consumption figures are 35 oz. in U.S.A., 30 oz. in Britain, 56 oz. in New Zealand and 61 oz. in Sweden. In other countries the yield of cows per lactation averages from 3,000 to 4,000 lb. but the better Indian breeds yield only 1,500 lb.

LOW MILK CONSUMPTION—According to the 1951 cattle-census, the average per capita consumption of milk and milk-products works out at 5.5 ounces per day. The consumption varies considerably in different parts of the country and among the various classes of population. It is as high as 16.89 oz. in the Punjab and 15.72 oz. in Rajasthan, while in Orissa it is as low as 2.64 oz. Except Punjab and Rajasthan, the major States of the country are deficient in milk-consumption by the standard of ten ounces per day recommended by nutrition experts.

The gross annual milk production in India was 481.55 million maunds in 1945 and 520.43 million maunds in 1951, out of which the quantum used as fluid milk came to 174.09 m. mds. (36.1 p.c.) and 195.28 m. mds (37.53 p.c.) respectively; about 66 p.c. of the total yield is marketable, the balance being fed to the calves or retained for home consumption. Excepting some 'Milk Pockets' or areas of concentrated milk production in Bombay, Uttar Pradesh, Bihar, Madhya Pradesh and Saurashtra, where a large quantity of surplus milk is available during the flush season, milk is produced in the Indian villages on a small scale— the average daily output amounting to a mere 2.5 mds.

RESEARCH ASSOCIATIONS—*Indian Dairy Science Association* was formed in 1948 with the object of advancing the cause of the science of dairying in India by co-ordinating and unifying the activities of dairy scientists in the country towards rapid advancement of nation's dairy industry.

Indian Dairy Council has been inaugurated in 1948 with the object of promoting and safeguarding the interests of the dairy industry in India. It is a common platform on which representatives of various interests of the milk industry, such as producers, consumers, traders and technicians could meet together for developing it on sound and economic footing.

LARGE-SCALE PRODUCTION OF MILK—Steps are being taken by several States to organise the supply of milk on the Governmental basis. Government of Bombay has established a very large milk colony at Aarey near Bombay, where about 15,000 animals are housed under the most modern conditions and the milk is supplied to Bombay city after pasteurisation. The milk project at Aarey at Bombay handles over 4,000 mds of whole and toned milk dairy. Similar big milk colony has been established by the Government of the West Bengal at Haringhata near Calcutta, which supplies milk to Calcutta through numerous milk depots. Handling of milk through the dairy plants at Haringhata was increased to 750 maunds per day. Delhi milk supply scheme is being directly administered by the Ministry. The New Zealand Government have helped the Delhi milk supply scheme under the Colombo Plan

DAIRY EDUCATION—*The National Dairy Research Institute, Karnal* is the principal educational and research centre in the country in dairy science It has a southern regional station at Bangalore It is organised into five research divisions and an Education Wing with a Dairy Science College The five research divisions deal with Dairy Husbandry Dairy Chemistry Dairy Bacteriology, Dairy Technology and Dairy Engineering The Institute offers technical advice to trade private individuals, etc The Institute is a centre for key village work and runs several artificial insemination centres The Dairy Science College attached to the Institute has been affiliated to the Punjab University At the headquarters of the Indian Council of Agricultural Research, *Central Dairy Information Bureau* has been set up for collecting technical information and to render necessary advice to those engaged in the dairy industry. *The Veterinary Research Institute* at Izatnagar, the *Dairy Research Institute* at Bangalore and *Cattle Breeding Station* at Jabalpur carry out researches on animal husbandry The Veterinary Research Institute besides teaching and advisory work manufactures biological products The Dairy Institute carries on development work in respect of pedigree herds of Red Sindhi Gir and Tarparkar cows and Murrah buffaloes The Cattle Breeding Station carries out cross breeding of cattle under controlled conditions

GHEE PRODUCTION IN INDIA—The annual production of ghee in Indian Union is estimated at one crore and fifteen lakh maunds In order of importance the main ghee producing areas are Punjab U P Madras and Bihar which account for 15 7 13 8, 9 8 and 5 4 of the total production respectively Thus three fifths of the ghee production is concentrated in Northern and Western India and the remaining two fifths is scattered in the rest of the country Taking the country as a whole India produces 8 9 maunds of ghee per square mile, 21 4 maunds per village and 3 6 maunds for 100 persons. The annual per capita consumption of ghee in India is highest in Gwalior and Sind with 15 5 and 11 2 seers respectively and the lowest in Hyderabad and Bengal with 1 1 and 1 3 seers respectively Of the total ghee production nearly 30 p c is retained by the producers for domestic consumption and 70 p c is marketed

India imports about 66 000 maunds of ghee mostly by land frontier routes from Nepal India also exports about 66 000 maunds of ghee to the Straits Settlements Burma Federated Malaya States and Africa. (*Ghee Marketing Report of the Government of India,* 1948)

GHEE ADULTERATION—With a view to distinguish genuine from adulterated *ghee* the Government of India have been developing an organisation for grading and marking of genuine *ghee* The grading organisation started its work in 1938 and its mark is now known as *Agamark* In 1947 the amount of agamarked *ghee* was about 2½ lakh maunds. The inadequacy will be clear when we see that this 2½ lakh maunds of certified agamarked ghee constitute only 2·2 per cent. of the ghee produced in the country. On an average only one sample is collected and examined for every 550 maunds of ghee consumed in the country. Experience has shown, generally speaking, 50 per cent of the sample tested are found to be adulterated.

At present the grading under *Agamark* is voluntary. The ghee adulteration by mixing *Vanaspati* (hydrogenated oil) has become so widespread that the Government of India have been compelled to put the matter in the hands of an expert committee, known as Ghee Adulteration Committee, which has recommended that every lot of *Vanaspati* produced in a factory should be accompanied by a certificate that it gives Baudouin test ; that the *Vanaspati* should be coloured orange by using carotine oil concentrate as colouring medium, in addition to sesame oil ; and that the *Vanaspati* should be fortified by synthetic vitamin 'A' so that its nutritive value may be increased. The Government have accepted the first and the last recommendations. As regards second, further experiments are to be conducted, for the colour suggested was unstable and involved expenditure in dollars.

WILD LIFE IN INDIA

INDIA'S RICHNESS IN WILD LIFE—India has a rich and varied fauna comprising fish, birds and mammals. The diversity which manifests itself in the variations in rainfall, temperature and climate, determines the distribution of its wild life. India has all the types of forests with the result that practically all types of birds and animals are found in India, *i.e.*, from animals like the Himalayan red bear, the snow leopard, musk-deer, etc., living near the perpetual snow line to tigers, elephants, rhinoceros, wild buffaloes, etc., living in the hot tropical forests. More than 500 different species of mammals are found in India. Our forests perhaps have some of the rarest and most magnificent animals. Among the cats, we have lions and tigers, besides panthers, wild cats, etc. Then we have the elephant, lion, wild buffalo, rhinoceros, etc., which can be classed as rare species. The Indian bison is the largest of the existing bovines and the Indian rhinoceros, the greatest of all rhinoceroses now inhabiting the world. The Indian elephant is much more handsome compared to its African cousin. The deer family is still richer and some of the most beautiful species, *e.g.*, chital, black buck, etc., are found in India. Chital is considered to be the most beautiful of all species of deer. Among the reptiles, the most dreaded species like king cobra, cobra, krait, viper, etc., are all present.

PHYSICAL REGIONS OF ANIMALS—For the purpose of distinguishing the wild life in India, we can divide the country into three broad physical regions—(1) *Himalayas,* (2) *Indo-gangetic Plain* and (3) *Deccan.*

Himalayas—The Great Himalayan arc occupies the region between the gorges of the Indus and the Brahmaputra covering a length of about 1,500 miles. The Himalayas can again be divided into three regions—Western Himalayas, Central Himalayas and Eastern Himalayas.

Western Himalayas—supports rich and varied wild life—such as markhor, ibex, wild yak, choral, Tibetan antelope, brown and black bear, tahr, Kashmir stag or hangul, barking deer, snow leopard, serow, goral, sambar and ammon. The markhor, wild sheep, snow leopard and brown bear occur nearer the snow line above 10,000 fees on Tibetan border and in Ladakh, in particular, one comes up against ammon, Tibetan antelope, wild yak, bharal, ibex and Tibetan gazelle.

Central Himalayas—While most of the Western Himalayan wild life persist in this region, ibex and markhor disappear and brown bear are seldom met with to the east of the Ganges. Panther is plentiful. The main sports of the Central Himalayas are Jaunsar-Bawar and Tehri-Garhwal and Kumaun.

Eastern Himalayas—Both panther and tiger are common along the foothills. Occasionally the great one-horned rhinoceros is also met with.

Indo-Gangetic Plain—lies like a moat skirting round the Himalayas from the Bay of Bengal upto the western boundaries of India. The representative animals met with in this region are—black buck, nilgai and pigs in the centre, tiger, panther, sambar, barking deer, elephant and rhinoceros. So in the *foot of the Himalayas* we have tiger, panther, sambar, bear, barking deer, elephant, buffalo, and rhinoceros (Assam and Bengal), chital, hog deer, swamp deer and four-horned antelope. In *central plain,* we have black buck, nilgai, pig, porcupine ; in the Thar desert we find desert cat, desert fox, desert hare and species of desert gerbilles. The moist eastern tracts have rhinoceros, buffalo, swamp deer. *In the Aravallis and Southern Highlands,* we have tiger, panther, sambar and barking deer.

Deccan—The Deccan plateau has three distinct regions—West Coast, East Coast and Central Plateau. In the open savannah lands of the Deccan, we have gazelle, antelope, jungle cat, common fox, mongoose, hyaenas, jackal, wolf, palm, squirrel, hares and rodents. In the deciduous forests, we have bison, sambhar, spotted deer, sloth bear and wild dog. In more humid zone, we have swamp deer, buffalo and elephant. In Nilgiris, Palnis and Anamalais and evergreen forests of the Western Ghats, we have wild elephant, bison, Nilgiri langur, lion-tailed macaque, Nilgiri brown mongoose and Malabar civet. It may be noted that the exclusive feature of the Deccan animal life is constituted by the spotted deer, nilgai, black buck, four-horned antelope and sloth bear—species which do not occur anywhere else outside India.

WILD LIFE PRESERVATION—The revival of interest in the conservation of wild life in India is a part of general renaissance which has transformed the country since Independence. The indiscriminate and incessant attacks of sportsmen have gradually wiped out several species of wild life in our country. In the past, spasmodic efforts were made to preserve the wild life. But the real attempt in this line has been the formation of Indian Board of Wild Life at Mysore in 1952. This Wild Life Board has pinpointed the need to preserve completely certain vanishing species. It has urged the States to create wild life board of their own and sanctuaries and national parks and to introduce new methods and to improve existing legislation. It has imposed export restrictions on certain animals and birds, it has endeavoured to find an alternative home for the Indian lion which is the nation's emblem. It has suggested that wild life be celebrated in the first week of October each year.

Wild life protection is provided for throughout India in the reserved forests under the sporting rules of the State forest departments and generally through the implementation of the Arms Act and in some States, the provisions of special acts for the protection of animals and birds. Some States not content with the protection afforded under these various types of legislation have created, like Bombay and Hyderabad, Wild Life Department.

Sanctuaries and National Parks are being created, though very slowly, for the protection of the vanishing animals of India. The principal game sancturies in India are the Rajaji Sanctuary in M. P., the Gir Forest in Saurashtra, the Kaziranga Sanctuary in Assam and the Jaldapara Sanctuary in West Bengal—the last two being essentially Rhino sanctuaries. Coming down to the South to the Deccan Plateau, we have the Mudumalai Sanctuary in Mysore, Periyar Sanctuary in Kerala and the Nagarhole Sanctuary in Mysore.

VANISHING ANIMALS—The animals which are gradually vanishing from Indian forests are lions, rhinos, Nilgiri langur, lion-tailed monkey, Indian wild ass, Kashmiri stag, musk deer, brown antler deer, pigmy hog, clouded and snow leopards, black-buck, bustard, wild buffalo and the like. In addition to this, crocodiles are being killed for their skins, peacocks for their feathers, muskdeer for musk.

VARIETIES & DESCRIPTION OF ANIMALS

(a) **Himalayan Species**—(1) Sheep—shapu of Ladakh, Bhoral; (2) Goat—Asiatic Ibex, markhor, Himalayan tahr, serow, goral, takin; (3) Deer—Kashmir stag, musk deer; (4) Bear—Himalayan brown bear, Himalayan black bear; (5) Carnivora—snow leopard, clouded leopard.

(b) **Tibetan Species**—(1) Yak, Tibetan wild ass, Tibetan antelope, Tibetan gazelle, Great Tibetan sheep.

(c) **Indo-Gangetic Plain and the Deccan**—(1) *General*—Indian rhinoceros, Indian elephant, (b) Deer—Sambhar, spotted deer or chital, hog deer, swamp deer, barking deer, mouse deer; (3) Antelopes—Nilgiri, black buck, Indian gazelle, four-horned antelope; (4) Bovines—Indian wild buffalo, gour or Indian bison; (5) Bear—sloth bear, malayan bear; (6) Carnivora—Asiatic lion, tiger, panther, hunting leopard or cheetah ; (7) Hyaena—striped hyaena ; (8) Dog —Indian wild dog ; (9) Goat—Nilgiri tahr.

Description of Animals—*Indian rhinoceros* is probably the largest of living rhinoceroses. It may reach 6 ft. at the shoulder with girth behind the shoulder of 11 ft. or more. This creature is in fair number in the Chitawan forests of the Nepal Terai of the Gandak river and it is also found in Bengal and Assam. Assam's rhinos are concentrated in the Kaziranga Sanctuary in Sibsagur district. The population of rhinos in this sanctuary is roughly estimated to be 250 to 300 Bengal rhinos are found in the Jalpaiguri district. *Elephants* are at present found in the forests of Coorg, Mysore and Travancore and in considerable number in the Orissa State, east of Mahanadi river They also occur in the Terai of U.P., in the forests of Assam and Bengal and in some parts of Orissa, east of Sambalpur. *Sambar of India* is the largest of forest deer in South East Asia, found in the forest clad hills in all parts of the country, specially in the South. *Chital or spotted deer* is found only in India and Ceylon and is widely distributed in India. *Nilgai or blue bull*- a kind of antelope so named on account of the colour of the fully matured animal is widely distributed, an exclusively Indian animal. *Black buck* is also exclusively Indian animal. *Indian buffalo* is becoming scarce and can be seen on Mahanadi river in the north-west corner of Orissa and in Assam. *Asiatic lion*—is now to be met with only in the Gir Forest of Saurashtra. A new home for lions has been chosen at Chakia, 30 miles from Banaras. *Tiger* is available in Chanda District (M. P), Eastern Kumaun, Sunderban forests. *Panther*—There is but one species of panther in India. *Hyena* occurs freely all over India. The *Leopard* and the *Panther* are far more common than the tiger in all parts of India. A black variety, as beautiful as it is rare, is found in the extreme south of the peninsula. Wolves abound throughout the open country and the Indian fox, striped hyena and the jackal are also very common. The ox-tribe is represented in India by *Gaur* or the bison of the sportsmen. It has very short curved horns and its skull is enormously massive. *Indian wild day* is found in Ladakh, Tibet down to the plains and the Deccan plateau. *Indian gazelle* is found in many parts of India from Indus to the South. *Mouse deer* is a tiny creature. It is quite plentiful in some areas of Central India and Madras State. *Hog deer* is somewhat pig-like appearance and has hog-like movement. This deer is common in sub-Himalayan tracts and in Assam. *Clouded leopard* has dark and rich colouring. It is found only in the dense evergreen forests of Sikkim, Bhutan, and Assam. *Himalayan black bear* is fairly common in Kashmir and in other parts of the Himalayas and occasionally in the Terai forests. *Gour* (Indian bison) is found in Mudumalai sanctuary in Madras.

PROBLEM OF WILD LIFE IN INDIA—Disafforestation in India during last two thousand years have totally changed the face of many parts of India. Sportsman's whip had butchered wild life and certain rare animals are nearing extinction. Indiscriminate cultivation in the interior of forests brings about needless interference with "Nature's reserves." The importance of forests, where alone genuine wild life can be preserved, is coming to be realised more and more. Realising the need of preserving the wild life of the country, the Government of India set up in April, 1952, an *Indian Board of Wild Life* to assist those in this line.

Desperate efforts are being made in India to save the wild life in India which are fast disappearing. We now find only last surviving lions in the Gir forest in Kathiawar and Indian rhinoceros in Assam, Bengal and Nepal. There are 225 lions and 350 rhinos in India. There are other wild animals which are dwindling in numbers in all states. Several of the State Governments have set up their State Wild Life Boards. Game Reserves and Wild Life Sanctuaries have been established.

A good amount of planning and scientific attention are necessary in setting up parks, reserves and sanctuaries. The following proposals have been made by the Indian Board of Wild Life—(1) Setting up of sanctuaries, (2) legislation for the protection of wild animals and birds, (3) appointment of observer for wild life, (4) adoption of stringent measures against destruction of wild life by employing poisoned weapons, nets, snares and explosives, (5) setting up of permanent machinery to keep constant vigil and for management of wild life throughout the country, (6) creation of buffer belts round the sanctuaries where the shooting of animals was to be prohibited, (7) periodical inoculation of domestic cattle in the neighbourhood of all national parks and sanctuaries against cattle-borne disease, (8) prohibition of the export of trophies except under certificate of ownership, (9) prohibition of netting of birds and animals during close periods and their sale, (10) fixation of annual limits regarding export and import of animals for the purpose of zoos, circuses and scientific institutions, (11) wild life day on the 7th July each year.

BIRD PROTECTION—*National Committee for Bird Preservation* has been formed in India in 1952 for the protection of some of the species of wild life which are now in danger of extinction. There are in India about 1,500 main species of wild birds. These are again sub-divided into several smaller sub-species. An important factor contributing to the extinction of certain species was the indiscriminate killing of rare birds for their feathers. There is urgent necessity for proper care of certain areas in the country, which are already being used as sanctuaries, such as Heronary at Bharatpur in Rajasthan and the Flamingo breeding grounds in Cutch, Bird Sanctuary at Vedanthangal (Madras).

NATIONAL PARKS AND SANCTUARIES IN INDIA

(National Parks are created and modified only by an Act of legislature, whereas a Sanctuary can be declared by Government).

Jammu & Kashmir—Three game sanctuaries in Jammu and three game sanctuaries in Kashmir; one of them is at Dachigam, home of Kashmir stag.

Punjab—Eleven game sanctuaries. In Pepsu there are game sanctuaries in the district of Kanda Ghat and in other reserve forests.

West Bengal—Wild life sanctuary at Gorumara (Jalpaiguri) measuring 3.33 miles under Jalpaiguri Forest Division situated in Lower Tandu range, (2) Chapramari sanctuary measuring 3.40 sq. miles in upper Tandu range. These two sanctuaries are mainly meant for the preservation of the rapidly vanishing Indian rhinoceros. (3) The biggest of Bengal sanctuaries is Jaldapara measuring about 36 sq. miles about 50 miles away to the east of Gorumara. Jaldapara sanctuary is under Coach Bihar Forest Division. The other two sanctuaries of Bengal are Senchal in Darjeeling and Lothian Island in 24 Praganas. It is estimated that the present strength of rhinoceros population in West Bengal is 60 to 70. Elephants are found in Gorumara and Chapramari and Jaldapara.

Assam—Assam has at present six very attractive game sanctuaries for the protection of rare animals of the State. Rhinos, bisons, elephants and buffaloes are some of the outstanding animals of Assam. (1) Manas Game Sanctuary spreads over 100 sq. miles on the north bank of the Brahmaputra and is in the Kamrup district. The sanctuary contains elephants, buffaloes, bisons, rhinos, bears, tigers, pigs and several kinds of deer including barking variety. The nearest railway station is Barpeta Road from which there is a cold weather motorable road to the sanctuary entrance. (2) Sanai-Ropa Game Sanctuary, Balipara, in the Mangaldai sub-division of Darrang district. It contains a few rhinos, elephants, bisons in addition to other animals. It can be reached from Rangapara railway station and Tezpur Aerodrome by all-weather motorable road. It is 85 sq. miles in area. (3) Pabha Puffalo Sanctuary, 30 sq. miles, about 100 miles east of the Sonai-Rupa Sanctuary, is situated in North Lakhimpur. This is exclusively meant for the protection of the magnificent species of wild buffalo in Assam which numbers about 500. (4) Kaziranga Sanctuary is in Sibsagar district. Bounded by Mikir Hills in the south and Brahmaputra in the north, it is 160 sq. miles and is easily accessible from Calcutta by air. A five-room bunglow has recently been constructed at Kahara near the entrance of the sanctuary. It lies in an easy-to-approach situation by the side of the Assam Trunk Road, at a distance of 150 miles from Gauhati. The nearest air port (Jorhat) is only 60 miles from here. The population of the rhinos in this sanctuary is 250 to 300. Other animals include about 300 elephants, 500 wild buffaloes in a number of herds, 4 types of deer including hog deer and swamp deer. (5) Orang Game Sanctuary in Nowgong district is 26 sq. miles in area. (6) Laokhowa Wild Life Sanctuary, 24 sq. miles in area, is in the process of development. (7) Tirap Fronteir Tract National Park in the remotest part of N. E. F. Agency.

Bihar—Hazaribagh National Park across which Patna-Ranchi Road cuts, lions, tigers and wild bears can be seen.

M. P.—(1) Tairoba Game Reserve, North Chanda Division, (2) Bori Game Reserve, Hosangabad Dn., (3) Kanha National Park and (4) Shivapuri National Park (Gwalior).

Bombay—(1) Krishnagiri National Park, Kanheri valley, (2) Wild Life Sanctuary & National Park, Kulgi & Virnoli, North Kinara Dist., (3) Elephant Island, (4) Gir Forest, home of Indian lions.

Madras—Mudumalai Game Sanctuary, Nilgiri District, Guindy Park Reserve Kodaikadu Reserve Forest (Tanjore), Bird Sanctuary at Vedanthangal. On the Ooty side of the Moyar lies Mudumalai, the largest wild life sanctuary and timber forests of Madras State. It occupies a space of about 174 square miles. Here are found gaur, tiger, bear, sambar, chital, wild pig, elephant, mouse deer, barking deer, panther, common langur, squirrel, etc.

Mysore—(1) Sanctuary for birds. near Seringapatam, (2) Fish Sanctuary, Ramnathpur, (3) Miniature National Park, Mysore Zoo, (4) Bandipur Game Sanctuary. About 48½ miles from Mysore City and 50½ miles from Ootacamund, is the Bandipur Sanctuary. The forest covers 310 sq. miles, of which 22 sq. miles form the game sanctuary proper. The elephant, deer, bison, sambhar, panther and chital are the better known of many species. The *Venugopal Wild Life Park* here is a place for seeing wild game in its natural surroundings. (5) Nagarhol Game Sanctuary at Coorg. The total area of the forest including the sanctuary is about 140 sq. miles. The only approach to the sanctuary is by road from Mercara, which is 61 miles away.

Kerala—(1) Periyar Sanctuary. It is the most attractive of the sanctuaries of the country. It is set around a large expanse of water—the Periyar Lake—covering an area of 300 sq miles. Wild elephant, bison, wild bear, sambhar, besides a variety of small game, are found here. It is 135 miles from Cochin and 88 miles from Madurai. (2) Peermade Game Association Area.

Andhra—Wild Life Sanctuary to be opened shortly in Cuddapah and Chittur districts on a patch of nearly 190 square miles of forest.

Uttar Pradesh—In U.P the most important and perhaps the largest in India is the Corbett National Park, near Ramnagar, covering an area of 125 sq miles. Besides this important Park, there is the *Nanda Devi Sanctuary* at a altitude of 14,000 to 15,000 feet surrounded on all sides by the mighty peaks of the Nanda Devi group. The *Kansaru Sanctuary* in Dehra Dun division covers 28 miles.

Orissa—There are at present four sanctuaries as detailed below—(1) *Debigarh Game Sanctuary* was established prior to 1931. It extends over an area of about 5½ sq. miles. The important wild life to be seen here is tiger, leopard, sambar, antelope, bison and nilgai. (2) *Raigoda Game Sanctuary* established during 1938-39, lies 23 miles south of Angul town. It is about 17 sq miles in area. (3) *Chandika Game Sanctuary* established in 1935, covers an area of about 12 sq. miles and is situated about 12 miles towards west of the new capital, Bhubaneswar. (4) *Balukhand Sanctuary* was established during 1935. (5) A National Park in Simlipal Hills of Mayurbhanj has been opened.

Manipur—Keibul Kajao Wild Life Sanctuary. The Government of

India has sanctioned Rs. 1,20,000 in the second Five-Year Plan for this sanctuary. This sanctuary covers an area of about 20 miles bordering the Loktak Lake and abounds with the Sangai-brow antler, a rare specimen, now on the verge of extinction.

National Parks in India—The following are the National Parks of India—Shivapuri National Park (M.P.), Corbett National Park (U.P.), Tirup Frontier Tract National Park (N.E.F. Agency), Krishnagiri National Park (Bombay), Kanha National Park (M.P.).

ZOOLOGICAL GARDENS IN INDIA

Calcutta
Hyderabad
Madras
Mysore
Trichur
Trivandrum
Poona
Bombay
Baroda
Junagadh
Ahmedabad
Nagpur
Udaipur
Kotah
Gwalior
Lucknow
Jaipur
Jodhpur
Bikaner
Delhi

NATIONAL DEFENCE

DEFENCE ORGANISATIONS--The Defence of India is under the Ministry of Defence in the charge of a Cabinet Minister. Under the Indian Constitution, the Supreme Command of the Armed Forces of the Indian Republic vests in the President. On August 15, 1947 each Service was placed under its own Commander-in-Chief. From 1955 the title of the Commander-in-Chief was abolished and the three service chiefs of Army, Navy and Air were designated as the Chief of the Army Staff, the Chief of the Naval Staff and the Chief of the Air Staff respectively.

The Ministry of Defence is responsible for obtaining policy decisions of the Government on defence matters and for securing their implementation by the Service Headquarters. The subjects allotted to it are—

(*a*) Defence of India and also Marine Surveys and matters concerning dangers to Navigation.

(*b*) Maintenance of Land, Naval and Air Forces and other armed forces including National Cadet Corps, Auxiliary Cadet Corps, etc.

(*c*) Formation of Cantonments, Constitution of Cantonment Boards.

(*d*) Army, Navy and Air Force works including Ordnance Factories.

(*e*) Acquisition or requisitioning of property for Defence Services.

(*f*) Union agencies and institutions for professional, vocational or technical training for the Armed Forces personnel and for promotion of Special studies or research in relation to the Forces, Defence Science Organisation.

(*g*) Defence Industries.

The Defence Ministry is headed by a Cabinet Minister assisted by two Deputy Ministers and a Parliamentary Secretary. The policy decisions of the Ministry relating to defence are taken by the—

(*a*) *Defence Committee of the Cabinet*—The Prime Minister is the Chairman of the Committee with Ministers of Defence, Education and Scientific Research, Home, Finance, Transport and Communications as members.

(*b*) *Defence Minister's Inter-Service Committee.*

(*c*) *Chief of Staff Committee.*

The Secretariat of the Ministry is organised into the following thirteen Branches—(1) Ordnance Branch (2) Adjutant General's Branch (3) Pay and Pensions Branch (4) Air Branch (5) General Staff Branch (6) Co-ordination Branch (7) Vigilance Branch (8) Navy Branch (9) Personnel Branch (10) Registration Branch (11) Personnel Relations Branch (12) Quartermaster General's Branch (13) Administration Branch.

The Inter-Service Organisations—The following are the inter-service organisations—

(1) *Office of the Chief Administrative Officer*—This officer is responsible for (*a*) all matters connected with the organisation and general administration of gazetted officers and non-gazetted staff of the Armed Forces Headquarters and the Inter Service Organisations (*b*) for office accommodation for Defence Headquarters and residential accommodation for Service Officers (*c*) Security measures for Defence Headquarters.

(2) *Directorate General of Ordnance Factories.*

(3) *Hindustan Aircraft (Private) Ltd.*

(4) *Bharat Electronics (Private) Ltd.*, which produces wireless and electronic equipment primarily for the Defence Services and Civil Departments of Government.

(5) *Technical Development Organisation* for technical research, design, development, inspection, technical trials and modification of all weapons, ammunition, etc.

(6) *Defence Science Organisation* has got its own laboratory in a wing of the National Physical Laboratory. Two more laboratories, namely, Indian Naval Physical Laboratory and Indian Chemical and Metallurgical Laboratory have been established. An Institute of Armament Studies has also been established for carrying out study and research on the performance of weapons. There is also a Psychological Research Wing, where research on psychological problems of three services is conducted.

(7) *National Cadet Corps Directorate* at New Delhi deals with N. C. C. and also Auxiliary Cadet Corps.

(8) *Military Lands and Cantonments Service* is responsible for the administration of the Cantonments in India and all Military Lands in and outside cantonments. There is also the Lands, Hirings and Disposals Service within this Service.

(9) *School of Foreign Languages*—This school provides teaching in French, Russian, German, Chinese, Persian, Arabic, Japanese, Burmese, Tibetan and Spanish.

(10) *Directorate-General, Armed Forces Medical Services* has

been established to develop the medical services of the Army, the Navy and the Air Forces. The Armed Forces Medical College, Poona, the Armed Forces Medical Stores Depots at Bombay and Lucknow and the Artificial Limb Centre, Poona are under the Directorate.

(11) *Combined Inter-Service Historical Section* is a combined organisation of India and Pakistan for compiling an official history of the second World War. The expenditure is to be met by India and Pakistan in the rates of 70 : 30.

(12) *Historical Section* has been created for compiling the history of post-partition military operations.

(13) *Armed Forces Information Office* is to keep the public informed about the activities of Defence Services through the medium of press, radio, films, etc.

(14) *Armed Forces Film and Photo Division* caters for the film and photographic requirements of three services and the Director-General of Ordnance Services.

(15) *Office of the Fire Adviser.*

(16) *Director of Military Regulations and Forms* is responsible for the printing, publications and forms, stationery, distribution of decorations, and medals, etc.

(17) *Indian Soldiers', Sailors' and Airmen's Board* is intended to render assistance to ex-servicemen and their families and also to look after the domestic interests of serving personnel.

(18) *Resettlement Section*—formulates schemes for the rehabilitation of ex-servicemen in all spheres.

Research and Production—In order to evolve a co-ordinated policy in regard to production of defence stores and equipment for the three services, the Government of India had set up in 1953 *a Defence Production Board.* The Defence Production Board has been constituted under the Ministry of Defence, the main function of which is to co-ordinate research, development and design activities in three Services relating to defence production. Associated with the Board is the Defence Production Advisory Committee. Apart from being responsible for the efficient running of ordnance factories, the Board pays special attention to maximum utilization of the existing capacity for defence production. Following are some of the factories or institutions for attaining self-sufficiency in defence equipment—(1) *Machine Tool Prototype Factory at Ambarnath.* (2) *Jerrycan Factory at Wadala and the Barrel Factory at Bhusaval* for the production of ordnance stores. (3) Production of electronic, radio and radar equipment at the *Bharat Electronics Ltd. at Bangalore.* (4) *Hindustan Aircraft Factory* for the production of trainer aircraft at Bangalore.

Defence Science—In order to ensure that scientific research plays an effective role in defence production, a *Scientific Adviser* has been attached to the Defence Minister in overall charge of the newly-created *Research and Development Department* brought into being by the amalgamation of the Defence Science Organisation and the Technical Development Establishments of the three Services. At the head of this new set-up, the Scientific Adviser to the Minister is assisted by the Chief Controller and a Chief Scientist, while research work is carried on at the defence research laboratories at Delhi, Bombay and Cochin and at the Institute of Armament Studies, Kirkee Development work is concentrated at various Technical Development Establishments scattered all over the country. *Research and Development Advisory Committee* has been constituted with the well known civilians, scientists, senior service officers and defence scientists as members and the Scientific Adviser as Chairman in order to see that all eminent scientists have an opportunity to guide defence efforts This Committee has replaced the Defence Research Policy Board and the Research and Development Committee.

MILITARY TRAINING FOR THE PEOPLE

In order to build up a reserve force to be called into service in a national emergency, a *Territorial Army*, a *Lok Sahayak Sena*, a *National Cadet Corps* and an *Auxiliary Cadet Corps* have been formed.

National Cadet Corps On April 8 1948 the Indian Parliament passed the Indian National Cadet Corps Act with the object of (*a*) developing character comradeship ideal of service and leadership in the youth of the country, (*b*) giving the youth basic military training and training in the weapons and equipment of the three Services and thus attracting suitable young men to join the country's Armed Forces (*c*) stimulating interest in the defence of the country and (*d*) building up a reserve of leaders to enable the Armed Forces to be expanded rapidly in a national emergency

The N C C is entirely voluntary with no liability for service in the Armed Forces This is meant for the students in schools and colleges The Cadet Corps consists of three divisions, namely senior, junior, and girls. The Senior Division consists of Army, Navy and Air Force Wings The strength of the Corps at the begining of 1959 was 1,87,350 cadets and 4,950 officers.

Indian Territorial Army—On September 1 1948, was passed the Indian Territorial Army Act primarily (*a*) to build up a reserve force to be called into service in a national emergency, (*b*) to be a second line of defence to reinforce the regular Army as and when the occasion demands, (*c*) to guard the home front, upkeep the supply and communication lines open, man the coastal defences and assist the civil administration in preserving internal order. Every individual joining the Territorial Army will be required to undergo a period of intensive training for a month or two every year. The Territorial Army is meant for citizens between the ages of 18 and 35

Lok Sahayak Sena—It was established in May, 1955. Its aim is to give elementary military training to about 5,00,000 men in five years. All able bodied men between the ages of 18 and 40 can join the Lok Sahayak Sena Membership of the force carries no liability to military service

Auxiliary Cadet Corps—In order to cope with the demand for military training for boys and girls in schools who cannot get the admission into the National Cadet Corps, the Auxiliary Cadet Corps has been started in 1952. The Auxiliary Cadet Corps trains the youth of the country in team spirit, discipline and patriotism. The Corps functions under the overall supervision of the Director, National Cadet Corps, Ministry of Defence.

Auxiliary Air Force—has now five Squadorns at Bombay, Madras, Allahabad, Calcutta and Delhi as counter-parts of the Territorial Army in the Air Force.

INDIAN ARMY

The Army Headquarters, like the other two Services Headquarters, is located in Delhi, and functions directly under the Chief of the Army Staff. It is divided into the following six main branches . (*a*) General Staff Branch, (*b*) Adjutant General's Branch, (*c*) Quarter-Master-General's Branch, (*d*) Master-General of the Ordance Branch, (*e*) Engineer in Chief's Branch and (*f*) Military Secretary's Branch. These branches are further sub-divided into directorates.

Commands and Areas—Under the Army Headquarters, the Army is organised into Commands, each under a G.O C. in-Chief of the rank of Lt. General There are three Commands—Southern, Eastern and Western. The Command is divided into Areas, each under the Command of a G O C of the rank of Major General and the Areas are in their turn divided into sub-Areas, each under the Command of a Brigadier. These are static formations, the operational mobile formations corresponding to the Command, Area and sub-Area being respectively Army, Division and Brigade.

INDIAN NAVY

Naval Headquarters at Delhi controls all administration and operation of all ships and establishments. The Head of this organisation is the Chief of the Naval Staff. There are four Principal Staff Officers and Naval Secretary under the Chief of the Naval Staff, such as (1) *Deputy Chief of the Naval Staff*—responsible for all work in connection with operations, plans, movement programmes, intelligence, security, communications, hydrography, press and publicity, statistics, etc. (2) *Chief of Personnel*—responsible for recruitment, service conditions, training, welfare and discipline of Navy personnel, appointment of officers and general manning of the fleet. (3) *Chief of the Material*—responsible for the provision of ships, weapons and equipment, dockyard facilities, aquisition and construction of ships and the production and procurement of all naval stores. (4) *Chief of the Naval Aviation*—responsible for the general direction and co-ordination of all naval air matters. (5) *Naval Secretary* is the head of the Secretariat.

All ships afloat, excluding minesweepers and survey ships, are controlled by the *Flag Officer (Flotilla), Indian Navy.*

All shore establishments of the Navy in or near Bombay including Jamnagar and Lonavla, are controlled by *Commodore-in-Charge, Bombay.*

Commodore-in-Charge, Cochin, is responsible for all shore establishments and ships in Cochin. *Naval Officer in-Charge, Visakha-*

patnam, is responsible for the administration of I.N.S. Circars, I.N.S. Hooghly and I.N.S. Adyar. Resident Naval Officers of Calcutta and Madras are under him.

The Indian Fleet consists today among others the following—

(a) Flagship *I.N.S. Mysore* (Colony Class cruiser 8,7000 tons).
(b) *Delhi* (Leander-Class cruiser 7,030 tons).
(c) Indian Naval Flotilla—*Rajput, Ranjit, Rana, Godavari, Ganga* and *Gomati, Tir, Kishna, Cauvery, Shakti, Nagar.*
(d) Minesweeping Squadrons—*Bombay, Konkan, Madras, Bengal, Rohilkhand, Bassein, Bimlipatam, Karwar, Cannanore, Cuddalore, Kakinada,* etc.
(e) Survey ships—*Investigator, Sutlej and Jumna.*
(f) Fleet tankers—*Shakti* and other auxiliary vessels at Cochin.
(g) Three anti-submarine frigates—I.N.S. *Trishul, Khurki* and *Tulwar.*
(h) 15,700-ton aircraft carrier H. M. S. *Hercules*. It is now being refitted and completely modernised in the U.K. Sea Hawk jet planes are being also purchased for this carrier.

Naval Training—The training of naval personnel is carried on at the following shore establishments—INS *Vendurthy*, Cochin, INS *Circars*, Visakhapatnam, INS *Angre*, Bombay, INS *Kunjali*, Bombay, INS *Sivaji*, Lonavla, INS *Valsura*, Jamnagar and INS *Hamla*, Bombay. The training of the personnel of the Naval Aviation Wing is carried out by the Fleet-Requirements Unit of INS *Garuda* at Cochin, which was the Navy's first air station to be commissioned in May 1953 with the formation of a squadron of amphibious sealand firefly aircrafts. INS *Asvini* at Bombay and INS *Sanjivani* and the two naval hospitals to be set up so far. The Naval Dockyard at Bombay is being expanded to meet the growing requirements of the Fleet. For production and printing of charts and marine survey, a Naval Hydrographic office has been established at Dehra Dun.

INDIAN AIR FORCE

On the recommendation of the Skeen Committee in 1926, a flight of the Indian Air Force was formed in April 1, 1933. Begining its career with a few Wapiti aircraft and a handful of Cranwell-trained pilots and a small team of airmen, the IAF has acquired a distincguished stature and status during the past 25 years. Today the service is not only a distinct and indispensible arm of the country's Armed Forces, in keeping with defence needs of the nation, but it is a modern, flying fit, expanding Air Force.

The Indian Air Force is under the Chief of the Air Staff, who is responsible for the command, discipline, operation, training and efficiency of the Air Force. It consists of three main branches, each under the charge of a Principal Staff Officer. The three main branches are—

(1) *Air Staff Branch*—The Branch controls Air Staff matters.
(2) *Personal and Organisation Branch* is responsible for esti-

mates, establishments, recruitment, posting and promotions of personnel and for accounting.

(3) *Technical and Equipment Branch* which controls the Technical and Equipment Services.

The organisation of the Indian Air Force below the Air Headquarters level is as follows—(1) *Operational Command* has under its control all flying units and signal units. The Command is responsible for the front line air defence and surface support. (2) *Training Command* has under its command all ground and flying training units which are responsible for training of officers and for the training of airmen. (3) *Maintenance Command* is responsible for the storage, maintenance and repair of aircraft and equipment of the I. A. F. (4) *Units directly under Air H.Q.* are mainly the Air Force Station, New Delhi, Air Force Selection Board and the Proof Ranges.

Air Reserves—The Reserve and Auxiliary Air Forces Act, passed in August 1952, provides for the establishment of three different categories of Air Force reserves.

The first type is to be known as *Regular Reserves*, comprising those officers and airmen who have at one time or other served in the regular Air Force and have since gone out of service on release or retirement. The second category, known as *Air Defence Reserves*, will consist of all technical and flying personnel associated with aviation but not directly connected with the regular Air Force. The third type, known as *Auxiliary Air Force*, is more or less a counterpart of the Territorial Army in the Land Forces. This auxiliary Air Force will comprise a number of squadrons to be raised in principal cities of India.

Three Auxiliary Air Force squadrons –No. 51 (Delhi) squadron, No. 52 (Bombay) squadron and No. 53 (Madras) squadron—were formally inaugurated in 1956. No. 54 (Calcutta) squadron has also been formed.

Entry into Air Force—The *Officer* Cadre in the Air Force comprises eight branches, viz., General Duties Branch consisting of pilots and navigators for flying duties and Ground Duties Branches (Technical Administration and Special Duties, Equipment, Accounts, Medical, Metrological and Education). Candidates are selected for direct entry into one of the Air Force training institutions—Air Force Flying College, Jodhpur, Air Force Technical College, Jalahalli (Bangalore) and Air Force Administrative College, Coimbatore.

Direct Commissions—are also granted in a few branches of the Army, Navy and Air Force on the recommendation of their respective Selection Boards.

INTER-SERVICE TRAINING INSTITUTIONS

National Defence Academy, Khadakvasla, Poona—The main channel for entry into the commissioned ranks of the Services is the National Defence Academy, Khadakvasla, Poona. The Academy provides combined preliminary training to cadets of all the three Services for a period of three years. On passing out from the N.D.A., Army cadets join the Military College at Dehra Dun where they receive pre-commission training for one year; while Navy and Air Force cadets go to the training institutions of their respective Services. The initial step therefore for getting a Commission in the Armed Forces is admission to the Defence Academy.

Defence Services Staff .College, Wellington—This is an inter-Services institution in the Nilgiri Hills, South India. The object of the training is to prepare officers to hold second grade or equivalent staff appointments and also to equip them for Command and higher Staff appointments.

Army Schools—Army runs a number of schools and training centres. These are the main schools (1) Service Corps School, Bareilly, (2) Remounts Veterinary and Farms Centre and School, Meerut, (3) School of Physical Training, Poona, (4) Army and Air Transport Support School, Agra, (5) School of Mechanical Transport, Faizabad, (6) Corps of Military Police Centre and School, Faizabad, (7) Education Centre and School, Pachmarhi, (8) Military School of Music, Panchmarhi, (9 Electrical and Mechanical School, Trimulgherry. The Army runs a number of schools for advanced training of tele communication and signal tactics, School of Artillery Centre and School at Ahmednagar, Schools of Signals at Mhow for training of tele communication and signal tactics, School of Artillery at Deolali with a branch in Bombay, Infantry School at Mhow and Ordance School at Jabalpur.

Naval Training Schools—The main naval training schools are located in Cochin, Visakhapatnam and Bombay

The principal naval training centres are—*I.N.S. Vendurathy* and the Naval Air Station *Garuda*, both at Cochin. *I.N.S. Shivaji* at Lonavla (Bombay) trains mechanical engineers and artificiers. *I.N.S. Valsura* is the electrical school of the Navy at Jamnagar.

Air Force Schools—One school at Jalahalli trains airmen in accounting, equipment, general office duties, medical assistance, etc., etc. Another school at Jalahalli trains airmen in higher signal business. There is a school at Tambaram for training flying instructors.

Air Force Technical College, Jalahalli (Bangalore)—trains engineering officers in technical engineering, signals, armament and electrical engineering trades.

Air Force Administrative College, Coimbatore—trains officers for ground duties.

Air Force Flying College, Jodhpur—trains pupil pilots for both basic and advanced flying. A Jet Training and a Transport Training wing have been set up at Hakimpet and Begumpet as a part of the Air Force Station, Hyderabad. Pupil aircrew have now to undergo a year's training in either of the two places.

Institute of Armament Studies, Kirkee—This Institute, the first of its kind in India, was established at Kirkee in 1952 and started its regular course for technical staff officers in October, 1953. An important function of this Institute is to maintain contacts with the universities and other civilian research institutions to promote the dissemination of basic knowledge of defence science.

School of Foreign Languages, New Delhi—This school has been

started at New Delhi in February, 1949, to impart instruction in certain foreign languages to officers of the Armed Forces.

College of Military Engineering, Kirkee—This college is situated at Kirkee, near Poona. It trains officers and other ranks in military engineering.

Armed Forces Medical College, Poona.—This college has been started to impart training to newly commissioned medical officers and refresher courses for medical officers of the Armed Forces to keep them up-to-date in their profession.

School of Aviation Medicine—To train officers in aero-medicine, a School of Aviation medicine has been started at Bangalore.

Land-Air Warfare School is in the process of establishment.

Military College—The Military College at Dehra Dun is the premier college for training future officers of the Army. The principal source of entry into this College is the National Defence Academy, when the cadets passing out of the Academy receive one year's training at Dehra Dun before being Commissioned; other entrants are those who qualify in the competitive entrance examination of the Union Public Service Commission and the Services Selection Board for two years' training, graduate cadets of the NCC for one and a half years, other graduates selected for specialised commission in the technical arms for a year and serving Regular or Territorial Army Personnel—JCOS and NCOS—for two years.

MISCELLANEOUS

New Badges and Awards—In conformity with the new status of free India, the pattern of various items of dress for three Services had to be revised. Badges and buttons having symbols or insignia of British royalty were dropped and replaced by appropriate emblems. Mottos, which tied India sentimentally with the British Crown, were amended and substituted by suitable Indian equivalents. Regiments and units of the Army possessing the King's Colours and State Forces Colours laid them up at the Military College.

Three Service decorations, namely *Param Vir Chakra, Maha Vir Chakra* and *Vir Chakra* for galantry in combat with the enemy were also announced. Besides, a fourth award, Ashoka Chakra, Classes 1, 2 and 3, were instituted for conferment for acts other than in combat with the enemy, as for example, in maintaining law and order. Members of the Armed Forces and civilians alike are eligible for this award.

Army Ranks—The various commissioned ranks in the Army from the top downwards are: General, Lieutenant-General, Major-General, Brigadier, Colonel, Lt. Colonel, Major, Captain, Lieutenant and Second Lieutenant. The ranks of the Junior Commissioned Officers and other ranks respectively are Subedar-major/Resaldar-major, Subedar/Resaldar and Jamadar/Dafadar and Havildar, Naik, Lance-Naik and Sepoy/Sowar.

Navy Ranks—The various ranks of the Navy from the top downwards are: Admiral, Vice-Admiral, Rear-Admiral, Commodore, Captain, Commander, Lt. Commander, Lieutenant, Sub-Lieutenant, Branch List Officer, Midshipman, Chief Petty Officer, Petty Officer, Leading Rate, Able Rate and Ordinary Rate.

Air Force Ranks—The various commissioned ranks in the Air Force from the top downwards are : Air Chief Marshal, Air Marshal, Air Vice-Marshal, Air Commodore, Group Captain, Captain, Wing Commander, Squadron Leader, Flight Lieutenant, Flying Officer and Pilot Officer. The men are ranked as Master Warrant Officer, Warrant Officer, Flight Sergeant, Sergeant, Corporal, Leading Aircraftsman, Aircraftsman Class I and Aircraftsman Class II.

NATIONAL INCOME

In assessing the national income of India, the following basic facts are to be taken into account—

(1) An undeveloped economy, the co-existence of unutilised or under-utilised manpower on the one hand and of unexploited resources on the other.

(2) A predominently agricultural country, from which half of the country's national income is derived and which absorbs nearly three-fourths of its workings force.

(3) Low rates of investment to national income. In 1953-54, net investment amounted to only 6.8 per cent of the national income.

The national income of India at 1948-49 prices was Rs. 11,010 crores in 1956-57 and Rs. 10,480 crores in 1955-56 or Rs. 730 crores and Rs. 200 crores higher than in 1954-55. The per capita income at 1948-49 prices correspondingly rose from Rs. 271.9 in 1954-55 to Rs. 273.6 in 1955-56 and Rs. 284.0 in 1956-57. The estimates for 1955-56 included in this paper are based on the detailed method of estimation followed for the earlier years and show a slight upward revision over the preliminary estimates published last year. The estimates for 1956-57 are, however, based on partial material and are subject to revision.

Unlike 1955-56, which recorded a slight decline in agricultural output, the rise in national income during 1956-57 was about evenly contributed by the agricultural and non-agricultural sectors. The improvement at 1948-49 prices was Rs. 240 crores in 'agriculture' and Rs. 290 crores in other sectors.

The table below indicates the trend of national income and per capita income *at 1948-49 prices* :

Year	National income (in crores)	Per capita income (in Rs.)
1948-49	8,650	246.9
1949-50	8,820	248.6
1950-51	8,850	246.3
1951-52	9,100	250.1
1952-53	9,460	256.6

1953-54	10,030	268.7
1954-55	10,280	271.9
1955-56	10,480	273.6
1956-57 (Preliminary)	11,010	284.0

The figures show a rise in national income in real terms of 18.4 per cent during 1951-52 to 1955-56, the five-year period of the First Plan; and of 5.1 per cent during 1956-57, the first year of the Second Plan. The corresponding rise in per capita income was 11.1 per cent and 3.8 per cent respectively.

Expressed at current prices, national income stood at Rs. 11,410 crores in 1956-57 and Rs. 9,990 crores in 1955-56, or Rs. 1,800 crores and Rs. 380 crores higher than the 1954-55 level. The per capita income at current prices correspondingly rose from Rs. 154.2 in 1954-55 to Rs 260.8 in 1955-56 and Rs 294.3 in 1956-57. The larger increase at current prices than at constant prices was due to price changes.

NATIONAL INCOME OF INDIA

A. BY INDUSTRIAL ORIGIN

(Current Prices)

	1948-49 (1)	1949-50 (2)	1950-51 (3)	1951-52 (4)	1952-53 (5)	1953-54 (6)	1954-55 (7)	1955-56 (8)	1956-57 57 (9)
Agriculture ..	42.5	14.9	48.9	50.2	48.1	53.1	43.5	45.3	56.9
Agriculture, animal husbandry and ancillary activities .	41.6	43.8	47.8	49.1	47.1	52.0	42.3	41.0	55.5
Fishery ..	0.6	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.8
Forestry ..	0.3	0.4	0.4	0.4	0.1	0.6	0.5	0.5	0.6
Mining, Manufacturing and Small Enterprises ..	11.8	15.0	15.3	16.8	17.0	17.7	18.0	18.5	19.7
Mining ..	0.6	0.6	0.7	0.9	0.9	1.0	0.9	1.0	1.1
Factory establishments ..	5.5	5.4	5.5	6.4	6.4	6.9	7.5	7.8	8.9
Small enterprises ..	8.7	9.0	9.1	9.5	9.7	9.8	9.6	9.7	9.7
Commerce, Transport and Communications	16.0	16.6	16.9	17.9	17.8	18.0	18.1	18.8	19.8
Communications (post, telegraph and telephone) ..	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5
Railways ..	1.7	1.8	1.8	2.1	2.0	2.0	2.2	2.5	2.8
Organised banking and insurance ..	0.5	0.6	0.7	0.8	0.7	0.8	0.8	0.9	1.0
Other commerce and transport ..	13.5	13.9	14.0	14.6	14.7	14.8	14.7	14.9	15.0

Other Services ..	13 4	13 8	14 4	15 0	15 4	16 0	16 5	17 3	18 1
Professions and liberal arts	4 3	4 5	4 7	5 0	5 2		5 4	5 6	5 8
Government services (administration) ..	4 0	4 1	4 3	4 5	4 6	4 9	5,2	5 7	6 0
Domestic service .	1 2	1 2	1 3	1 4	1 3	1 4	1 4	1 4	1 5
House property .	3 9	4 0	4 1	4 1	4 3	4 4	4 5	4 6	4 8
Net domestic product at factor cost	86 7	90 3	95 5	99 9	98 3	104 8	96 1	99 9	114 0
Net earned income from abroad	—0 2	—0 2	—0 2	0 2	- 0 1		—	—	0 1
Net national output at factor cost—National income	86 5	90 1	95 3	9[illegible] 7	98 [illegible]	104 [illegible]**	96 1	99 9	114 1

B. SHARES OF GOVERNMENT AND PRIVATE SECTORS IN NET DOMESTIC PRODUCT

	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Net output of government enterprises	1	2 [illegible]	2 9		1		[illegible]	4 1	
Net output of government administration	1 0	1 1	1		1 [illegible]	4 [illegible]	2	5 7	
Net output of private sector	80	83	85		9 [illegible]	[illegible]	8[illegible] 4	90 1	–
Net domestic product at factor cost	8[illegible]	90 3	9 [illegible]		98	104 8	[illegible]	9[illegible]	—

C. COMPARISON AT CURRENT AND CONSTANT PRICES

Net domestic output in (Rs 100 crore)									
1 at current prices	86 5	90 1	9[illegible]	[illegible]	98 2	101 8	96 1	99 9	111 4
2 at 1948 49 prices	8[illegible]	8[illegible] 2	88 5	91	94 6	100 3	102 [illegible]	104 8	110 1
Net output per capita in Rs									
1 at current prices	24[illegible] 9	253 9	26[illegible] 2	274 0	[illegible] 4	280 7	2[illegible]4 4	260 8	2[illegible]4 [illegible]
2 at 1948 49 prices	246 9	248 6	24[illegible] 3		[illegible]	[illegible]8 7	271 [illegible]	273 6	284 0
Index number of net output with 1948 49 as base									
1 at current prices	100 0	104 2	110 2	115 3	113 5	121 2	111 2	115 5	1 1[illegible]
2 at 1948 49 prices	100 0	102 0	10[illegible] 3	10[illegible] 2	10[illegible] 4	116 0	118 8	121 2	127 3
Index number of per capita net output with 1948 49 as base									
1 at current prices	100 0	102 8	107 4	111 0	107 9	113 7	10[illegible] 0	105 6	119 2
2 at 1948 49 prices	100 0	100 7	99 8	101 3	10[illegible] 9	108 8	110 1	110 8	115 0

Source *Central Statistical Organisation*

**Preliminary

INDIANS OVERSEAS

India, more than two thousand years ago, was a great colonising country, sending her people far and wide over East Asia and founding colonies of a distinctly Indian character. But this stream of colonisation dried up round about the 8th century A.D. for reasons which history does not make full clear. It may be that the Muslim invaders checked the spirit of expansion ; it may be that as Hinduism absorbed Buddhism, the old missionary zeal abated and with it the urge for adventures overseas.

Indian emigration started again in the 19th century, but it was of an entirely different character. Instead of sending out traders, missionaries and conquerors, she sent out people of high culture which stamped itself indelibly on the culture of the countries they visited. She sent out labourers of an humble order to work on the plantations of tropical and sub-tropical countries. These people and their descendants settled in their homes and have created Indian enclaves with a distinct life of their own.

The vast mass of Indian emigration has been to countries within the British Empire. The recruiting of Indian labour for plantation work began in the 19th century. It was given stimulus by the abolition of slavery throughout the British Empire, when emancipated slaves were on the whole unwilling to work for wages and labour had to be recruited from elsewhere. India with its large agricultural population accustomed to labour for a low monetary return, offered a promising field of recruitment.

At first the recruitment was a personal venture but later the traffic was organised by importing countries They appointed emigration agencies which supervised recruiting within India, arranged transport and organised distribution of labourers between planters in the colonies. Labour was recruited on definite contract —long term or short term. On expiry of the contract, the labourer could either renew it, return home (usually with financial assistance) or settle in the colony as a free man. This was the essence of the system of indentured labour, which aroused strong criticism in India and was finally abolished in 1916.

INDIANS OVERSEAS—Roughly, the total population of Indians abroad is nearly four millions. Despite the fact that the maximum number of Indians living overseas are in Burma, the Indian population to the total population there is only 6.9 p.c., whereas in Mauritius the Indian population is proportionately the highest—63.4 p.c. Next in order come British Guiana and the Fiji Islands, each with 47 p.c. of the total population being Indian nationals. In Trinidad and Tobago, the Indian population is 35.1 p.c., in Malaya and Singapore 11 p.c., Ceylon 12.2 p.c. and Jamaica 2.1 p.c. The countries in which Indians number more than a lakh are Ceylon, Malaya and Singapore, South-Africa, Trinidad and Tobago, Mauritious, British Guiana and Fiji Islands.

History of Emigration—The emigration of Indian labour began at the beginning of the nineteenth century, when the Indians first went to Straits Settlements in large numbers to work on the plantations. The emigration remained unregulated until the passing of the first Emigration Act in 1837. This Act was replaced by the Indian Emigration Act of 1922, which was further amended in 1938 and again in 1940.

'Emigration' means departure by sea out of India of a person under an agreement to work for hire. Emigration is not lawful unless the departure is made from ports which have been notified as "Emigration Ports." Emigration to any country for unskilled work is illegal at present and no one seeking unskilled work in Ceylon, Burma, Malaya and Singapore is allowed to leave India unless exempted by Central Government. Emigration of skilled workers is permissible provided they comply with prescribed formalities.

The functions under the Emigration Act are carried out by the Government of India through the Controller-General of Emigration and Joint Secretary to the Government of India in the Ministry of External Affairs, New Delhi, with the assistance of the Protectors of Emigrants at the Emigration Ports and the Controller of Emigration of Madras who supervises the activities of the Protectors of Emigrants in the Madras State.

Nature of Work—According to the latest information, Indians overseas are mostly labourers employed on tea and rubber plantations in Ceylon ; on coconut and sugarcane plantations in Fiji Islands ; on sugar and tea plantations in Mauritius ; on rice fields and in industrial establishments in Burma ; in tin, coal, gold, iron and aluminium mines and on rubber, tea, coconut, jute and cocoa plantations in Malaya and as agricultural labour in British Guiana.

The Emigration Ports—The following ports are declared Emigration ports under the Act with a Protector of Emigrants at every port—

(1) Bombay (Protector of Emigrants), (2) Okha (Port Officer), (3) Porbander (Port Officer), (4) Bedi (Port Officer), (5) Madras (Protector of Emigrants), (6) Negapattanam (Protector of Emigrants), (7) Dhanushkodi (Protector of Emigrants at Mandapam), (8) Tuticorin (Protector of Emigrants), (9) Gopalpur (District Officer, Ganjam), (10) Calcutta (Protector of Emigrants).

Quota System— Some countries, such as Canada U.S.A. Thailand, Philippines and Indonesia, allow Indians on Quota System, such as—

(1) Canada—Under an agreement in 1951 Canada agreed to receive 150 Indian nationals every year for permanent residence. The selection is entirely by the Government of Canada.

(2) U.S.A.—U.S.A. has fixed a quota of 100 Indian nationals for settlement there per year, of which 25 p.c. is reserved for Indians born or residing outside India. The selection is made by the U.S. Government.

(3) Thailand—has fixed quota of 200 Indian nationals per year. Selection is made by Thai Government.

(4) Philippines—From September 1943, 50 Indian nationals are admitted per annum under Philippines Immigration Act.

(5) Indonesia fixed a quota of 1,000 immigrants in 1952 to a group of four countries, namely, India, Pakistan, Ceylon and Burma.

(6) **Malaya**—is now divided into two administrative units—***Fedaration of Malaya*** and ***Singapore***. Indians are eligible for citizenship in the Federation of Malaya, if they fulfill the prescribed conditions. Under the new citizenship code of 1952, Federal citizenship is automatic for citizens of U.K. and colonies. Most of the Indians in Malaya are qualified or entitled to become citizens of the U.K. and colonies under the British Nationality Act of 1948. In Singapore there is no citizenship law and the British Nationality Act applies.

Unrestricted Migration—There are many countries where Indians are not admitted for the specific purpose of settlement ; they can enter and reside on completion of formalities on conditions prescribed under the respective immigration and other laws of those countries, such as—

Mauritius, British East African territories of Kenya, Uganda, Tanganyika, Zanzibar, Northern Rhodesia, Nayasaland, Belgian Congo, Ruanda-Urandi, Nigeria, Ethiopia, Aden, Bahrein, Iraq, Muscat, Kiwait, Saudi Arabia, Seychelles, Malaya, Fiji, Japan, United Kingdom, British West Indies, British Guiana and British North Borneo.

Ban on Entry—Indian immigratoin is either banned or is not permitted as a matter of policy into the following countries—South Africa, Southern Rhodesia, Northern Rhodesia, Australia, New Zealand, Ceylon, Nayasaland, Burma, most of the European and South American countries.

In Australia, Asians including Indians are not allowed to immigrate for permanent settlement. But Indians who are *bona fide* merchants may be admitted and allowed to remain there so long as they continue the trade. In Burma no foreigner is allowed to buy any property, nor can any property be transferred to any foreigner. As foreigners of the country Indians have no franchise. The worst form of racialism prevails in Union of South Africa. The new worst legislation in this respect is *Group Areas Act of* 1950 which divides the entire population in three main groups—White, Native and Coloured. The Indians are included in the Coloured group.

INDIANS OVERSEAS

(One thousand or over)

Commonwealth Countries

Aden (1955)	15 817	Malaya (1955)[1]	7 20 013
Australia (1947)	2 500	Ceylon (1954)	9,69,726
Br Honduras (1946)	2 000	Singapore (1954)	91,029
Br Guiana (1954)	2,10 000	Hong Kong (1955)	2 000
Canada (1956)	3 750	Mauritius (1956)	8,75 918
Br Borneo (1954)	2 000	Kenya (1954)	1,27,000
New Zealand (1952)	1 200	Uganda (1954)	50,000
South Africa (1951)	8,66,524	Nayasaland (1954)	6,000

---

(1) Including Pakistanis.

Zanzibar & Pemba (1948)	15,812	S Rhodesia (1954)	6,000
Tanganyika (1954)	68,500	Sarawak (1954)	2,201
Jamaica (1954)	26 500	Granada (1954)	6,000
Trinidad (1954)	2 67,000	St Lucia (1954)	8,000
Fiji Islands (1955)	1 60,203	United Kingdom*	
N Rhodesia (1954)	3,500	St Vincent (1954)	2,000

Foreign Countries

Bahrein (1956)	000	Muscat (1947)	1,145
Belgian Congo (1950)	1 227	Nepal (1941)	10,441
Burma (Approx)	6,50 000	Philippines (1954)	1,295
Dutch Guiana (1955)	70 000	Portuguese E Africa (1948)	12,600
Ethiopia (1955)	1 645	Reunion (1955)	2,500
Indo-China (1950)	2 300	Ruanda Urundi (1950)	1,963
Indonesia (1952)	40 000	Saudi Arabia (1956)	5 000
Italian Somaliland (1947)	1 000	Sudan (1956)	2 000
Kuwait (1954)	2 500	Thailand (1955)	11,235
Madagascar (1956)	14 000	U S A (1955)	5,063

Number of Emigrants

	From India	*Returning to India*		*From India*	*Returning to India*
1951	7 990	1 521	1953	10 876	1 049
1952	11,438	1 322	1954	3 734	1 546

INDIAN CENSUS

BROAD OUTLINES—The census taken in India in 1951 is the eighth regular census and first census of free India. We enumerate here the broad outlines of 1951 census—

1.	Total Population ..	356,879,394
2.	Literacy for India (1951) .	16 6 p.c.
3.	No. of females to every 1,000 males .	947
4.	Urban population .	62 million or 17 3 p c
5.	Rural population ..	295 million or 82 7 p c
6.	Total no. of towns ..	3,018
7.	Total no. of villages ..	680‘899
8.	P.C. of population dependent on agriculture ..	70
9.	Density o population ..	304 per sq. m.
10.	Increase over 1941 census .	12.5 p.c.
11.	Total land area covered by 1951 census	12,69,640 Sq. m.
12.	Highest density, Delhi .	3,017 per sq. m.
13.	Increase of urban population over 1941	3.5 p.c.
14.	P.C of population dependent on agriculture ..	70

---

*Latest figure not available

GROWTH OF POPULATION

	Pop. in millions	*Increase in millions*	*P.c. increa*
1891	235·90	—	—
1901	235·50	—0·4	—0·7
1911	249·05	13·55	+5·8
1921	248·18	—0·87	—0·3
1931	275·52	27·34	+11·0
1941	314·77	39·25	+14·3
1951	356·88	42·11	+13·4

INDIA & THE WORLD

Total Population .	Second highest in the world.
Land area . .	Seventh in the world.
P.C. of land area	India occupies 2.2 p.c. world-land area
P.C. of population	For every 13 persons in the world, two are living in India.

RURAL AND URBAN POPULATION

Total urban population	61,975,123	Total rural population	295,004,271
P.C. to total population	17.3	P.C. to total population	82.7
Number of towns	3,018	No of villages	558,189
Population of towns (lakhs)	619	Average population of villages	529
No of towns with one lakh or over population	73		

	P.c. of rural to total population	*P.c. of urban to total population*
1921	88.6	11.4
1931	87.9	12.1
1941	86.1	13.9
1951	82.7	17.3

RELIGION

	No. in lakhs	*P.c. of total population*
Hindu	3,032	84.99
Muslim	354	9.93
Sikh	62	1.74
Jain	16	0.45
Buddhist	2	0.06
Christian	82	2.30

	No. in lakhs	*P.c. of total population*
Zoroastrian	1	0.03
Tribal .	17	0.47
Other Religions (nontribal)	1	0.03
All Religions	3,567	100.00

SEX RATIO

In India as a whole the total number of males is 183 million and females 174 million.

	No. of females per 1000 males		*No. of females per 1000 males*
1921	956	1941 . . .	946
1931	951	1951 . . .	947

Sex Ratio in Big Cities (1951)

	Per 1000 males		*Per 1000 males*
Greater Calcutta	602	Ahmedabad	764
Greater Bombay	596	Bangalore	883
Madras	921	Kanpur	699
Delhi	750	Poona	833
Hyderabad	989	Lucknow	783

MARITAL STATUS—Out of every 10,000 persons in India there are 5,133 males and 4,867 females. Among them 2,521 males and 1,886 females are unmarried. If we reckon males and females together, the unmarried people are 44.1 p.c. of the population.

The proportion of unmarried persons is highest in South India (48.2 p.c.) and lowest in Central India (41.1 p.c.).

FUTURE GROWTH—It is the considered opinion of the census authorities that unless the rate of the growth of population is checked by contraception, or a breakdown of food supply of a serious nature, population will increase during 1951-80 at a faster rate than during 1921-50. So the following forecast which errs on the side of under-statement, can be accepted.

	Pop. in crores		*Pop. in crores*
1951	36	1971	46
1961	41	1981	52

The Census Commissioner stated that the only solution is the population control. Census Commissioner has pleaded for the adoption of a 15-year plan for the elimination of improvident maternity in India, such as efficient, harmless and economical methods of birth control and other measures.

BIRTH RATES AND DEATH RATES
(*per* 1,000)

	Birth rate	*Death rate*	*Infant mortality*		*Birth rate*	*Death rate*	*Infant mortality*
1936	36	23	162	1946	28·9	18·7	136
1937	35	22	162	1947	26·6	19·7	146
1938	34	24	167	1948	25·4	17·1	130
1939	34	24	156	1949	26·7	16·0	123
1940	33	22	160	1950	24·8	16·0	127
1941	32·1	21·9	158	1951	24·9	14·4	124
1942	29·5	21·4	163	1952	24·8	13·6	116
1943	26·1	23·9	165	1953	24·8	13·5	118
1944	25·8	24·5	169	1954	25·5	13·0	113
1945	20·0	22·1	151	1955	27.0	11.7	—
				1956	27.4	11.6	—

AGE STRUCTURE

Age Structure—The age structure of the Indian people has a striking difference from western countries—the juvenile proportion

of our population is much higher than in U.S.A. or European countries and a little higher than Japan.

	Age-group	*Percentage*
Infants & young children	**0 to 4**	**13·5**
Boys and girls	**5 to 14**	**24·8**
Young Men & Women	**15 to 24**	**17·4**
	25 to 34	**15·6**
Middle aged men & women	**35 to 44**	**11·9**
	45 to 54	**8·5**
Elderly people	**55 to 64**	**5·1**
	65 to 74	**2·2**
	75 and over	**1·0**
		100·0

POPULATION OF SPECIAL GROUPS—In 1951 in conformity with the Government's policy of discouraging community distinctions based on caste, information about race, caste or tribe has been collected only from certain groups of people who have specifically been mentioned in the Constitution. A person is a member of the "Special Group" if he is a member of a Scheduled Caste, of a Scheduled Tribe, of any other 'Backward Class' or if he is an 'Anglo Indian'—

Anglo-Indians	1,11,637	Scheduled Castes	5,13 43,898
		Scheduled Tribes	1,91,16,498

POPULATION ACCORDING TO LANGUAGES

	No in lakhs	*P c. to total*
*Hindi Urdu, Hindustani & Punjabi	1,499	46·3
Telugu ..	330	10·2
Marathi ..	270	8·3
Tamil ..	265	8·2
Bengali ..	251	7·8
Gujarati ..	163	5·0
Kannada ..	145	4·5
Malayalam ..	134	4·1
Oriya ..	132	4.1

	No in lakhs	*P c. to total*
Assamese	50	1·5
Kashmiri ..	0·05	
Sanskrit ..	0·01	

*Hindi (excluding Punjab, Delhi & Himachal Pradesh) ..	906 lakhs
Urdu .	136 „
Hindustani	82 „
Punjabi	8 „

AREA & POPULATION

States	*Area in sq. m.*	*Population (1951 census)*	*Density per sq m.*
Andhra ..	**105,700**	**31,260 133**	**296**
Assam ..	**85 062**	**9,043 707**	**171**
Bihar ..	**67,113**	**38,783,778**	**578**
Bombay ..	**190,668**	**48,265,221**	**253**
Kerala ..	**14,987**	**13,549,118**	**907**
Madras ..	**50,174**	**29,974,936**	**597**

M. P.	171,300	26,071,637	152
Mysore	74,861	19,401,193	259
Orissa	60,250	14,645,946	243
Punjab	47,062	16,134,890	343
Rajasthan	132,098	15,970,774	121
Uttar Pradesh	113,423	63,215,742	557
West Bengal	33,885	26,302,386	776
Territories			
Amindivi, Laccadive & Minicoy Islands	42	21,035	501
Andaman & Nicobar Islands	3,215	30,971	10
Delhi	573	1,744,072	3,044
Himachal Pradesh	10,922	1,109,456	102
Manipur	8,629	577,635	67
Tripura	4,022	639,029	159
States	1,173 936	356,741,669	313

POPULATION OF CITIES

Punjab	
Amritsar	325,747
Jullundur	168,816
Ludhiana	153,795
Uttar Pradesh	
Kanpur	705,383
Lucknow	496,861
Agra	375,665
Banaras	355,777
Allahabad	332,295
Meerut	233,183
Bareilly	208,083
Moradabad	161,854
Saharanpur	148,435
Dehra Dun	144,216
Aligarh	141,618
Rampur	134,277
Gorakhpur	132,436
Jhansi	127,365
Mathura	105,773
Shahjahanpur	104,835
West Bengal	
Calcutta (Greater)	45,78,071
Howrah	433,630
Tollyganj	149,817
Bhatpara	134,916
Kharagpur	129,636
Garden Reach	109,160
Behala	104,055

Mysore	
Bangalore	778,977
Mysore	244,323
Kolar Gold fields	159,084
Hubli	129,609
Mangalore	117,083
Rajasthan	
Jaipur	291,130
Ajmer	196,633
Jodhpur	180,771
Bikaner	117,113
Kerala	
Trivandrum	186,931
Alleppey	116,278
Delhi	
Delhi	914,790
New Delhi	276,314
Bihar	
Patna	283,479
Jamshedpur	218,162
Gaya	133,700
Bhagalpur	114,530
Ranchi	106,849

Bombay		
Bombay (Greater)		2,839,720
Ahmedabad	..	788,333
Poona	..	480,982
Nagpur	..	449,099
Sholapur	..	266,050
Surat	..	223,182
Baroda	..	211,407
Bhavnagar	..	137,951
Kolhapur	..	136,835
Rajkot	..	132,069
Jamnagar	..	104,419
Andhra		
Hyderabad	..	1,085,722
Vijayawada	..	161,198
Warangal	..	133,130
Guntur	..	125,255
Visakhapatnam		108,042
Rajamundry	..	105,276

Madhya Pradesh		
Indore	..	310,859
Jabalpur	..	256,998
Gwalior	..	241,577
Ujjain	..	129,817
Bhopal	..	102,633
Madras		
Madras	..	1,416,056
Madurai	..	361,781
Tiruchirapalli	..	218,921
Salem	..	202,335
Coimbatore	..	197,755
Kozikode	..	158,724
Mangalore	..	117,083
Vellore	..	106,024
Tanjore	..	100,680
Orissa		
Cuttack	..	102,505

LITERACY IN INDIA, 1955

Percentage of Literacy

[*The definition of literacy according to 1951 census was ability to read and write a simple letter*]

Part A States

	males	*females*	*total*
Andhra	22·2	8·6	15·1
Assam	27·1	7·0	18·1
Bihar	20·6	3·8	12·2
Bombay	35·5	12·7	24·6
M. P.	21·9	5·9	13·5
Madras	32·6	11·0	21·8

	males	*females*	*total*
Orissa	27·3	4·3	15·8
Punjab	22·0	9·5	16·1
U. P	17·4	3 4	10·8
West Bengal	34 7	12·8	24·6
	25·4	8·1	16·7

Part B States

	males	*females*	*total*
Hyderabad	15·1	3·0	9·2
M. B.	17·4	3·7	10·8
Mysore	29·5	9·8	19·9
PEPSU	17·7	5·2	8·4
Rajasthan	13·7	2·6	8·4
Saurashtra	26·3	10·5	18·5
Travancore-Cochin	55·2	37·7	46·4

	males	*females*	*total*
Kutch	24·4	10·2	17·1
Manipur	20·8	2·4	11·4
Tripura	22·3	8·0	15·5
Vindhya Pradesh	10·9	1·1	6·1
	21·1	8·5	15·1

Part C States

Ajmer	29·1	10·3	20·1
Bhopal	12·3	3·9	8·2
Coorg	34·0	19·0	27·2
Delhi	43·0	32·3	38·4
Himachal Pradesh	7·7	12·6	2·4

Part D States & other countries

Andaman & Nicobar Il's.	34·2	12·3	25·8
Sikkim	12·8	1·3	7·3
	17·3	3·0	10·7
All India .	24·9	7·9	16·6

INDIAN ARCHAEOLOGY

Beginnings of Archaeological Study in India—The idea of founding an institution for promoting the study of oriental literature and culture was first conceived by Sir William Jones, puisne Judge of the Supreme Court at Calcutta. In January, 1784 within four months of his arrival, Asiatic Society of Bengal and a museum were established under his guidance with the object of enquiring into the history and antiquities, arts, sciences and literature of Asia.

Though great impetus was given to the study of archaeology, there was, however, no systematic exploration of the antiquarian remains in the country during all these years. Alexander Cunningham, who had come to India in 1813 in the service of the Government of India as a Lieutenant of the Royal Engineers, urged that the Government of India should help in the preservation of ancient monuments by the appointment of a suitable officer at Government expense. Cunningham's appeal met with no response from Government but in 1860, Lord Canning, first Viceroy of India, decided to establish an Archaeological Department of Northern India with Cunningham as the first Archaeological Surveyor of India on a purely temporary basis. Cunningham's activities were confined only within North-Western Provinces (present U.P.) and Bihar. In 1866, after four years of appointment, the post was retrenched. However in 1870, during the viceroyalty of Lord Mayo, Government of India sanctioned the post of a Director-General of Archaeological Survey, for which Cunningham was appointed. This department's activities were confined only to Northern India. In 1874 the activities of the survey were extended to Western and Southern India. The conservation of ancient monuments, however, did not form any part of the duties of this department. This service was supposed to be performed by the Provincial Governments through their P. W. D. The result was that a scant attention was paid to the structural monuments of India. However in 1878, Lord Lytton, then Viceroy of India, wrote, "the preservation of national antiquities and works of art ought not to be left to the charges of local Government." The pronouncement led to the creation of the post of a "Curator of Ancient Monuments". His duty was to prepare a classified list of ancient monuments of each province and to advise Government as to which of them were fit to be kept in permanent good repair or decayed beyond that point but not in complete ruin or were unimportant or irretrievably ruined. But this post was again abolished and the task of conservation of monuments again devolved on Provincial Governments. The same year saw another great archaeological event in the passing of the Indian Treasure Trove Act VI of 1878.

In 1885 the Surveys of Northern and Southern India were amalgamated and were placed under a Director-General. The whole of British India was divided into five circles, *viz.*, Madras, Bombay, Punjab (with Sind and Rajputana), North-West Provinces (with Central India and Central Provinces) and Bengal (with Assam). But from 1889 the survey again fell into bad days with the result that several important posts were kept in abeyance.

But the brightest day of Indian Archaeology in India dawned with the appointment of Lord Curzon as the Viceroy of India. In one of his speeches he announced 'the conservation of ancient monuments as one of the primary obligation of the Government". So revival of the activities of the survey began again Indian States were put under one or other of the Surveyor In 1904, the legislature passed the much needed Ancient Monuments Preservation Act, which brought a new era for Indian archaeology. The main object of the Act was 'to ensure the proper upkeep and repair of ancient buildings in private ownership excepting such as were used for religious purposes, to prevent the excavation of sites of historic interest by ignorant and unauthorised persons, and to secure control over the traffic in antiquities"

With the departure of Lord Curzon in 1906 the Department passed through various vicissitudes of fortune From 1907 onwards there had been curtailments, retrenchments, reorganisations. The Reforms of 1919 made archaeology a Central subject and since then it has continued to be such Since the inception, the survey had concerned itself primarily with monuments dating from Maurya Period because very little archaeological evidence of a period earlier than the time of Buddha was forthcoming It was never dreamt that there could have been an earlier civilisation which was in every respect superior to the civilisation of the Aryan immigrants. All such ideas were however completely transformed by the discovery of the Indus Valley Civilisation together with regular excavations of important archaeological sites and also explorations in the borders of India and beyond them such as the undertakings of Sir Aurel Stein in Chinese Turkistan which made the work of the survey more progressive and more widespread

With the attainment of Independence on 15th August, 1947 and the partition of the country, fresh reorganisation of the department was called for East Bengal was lost to the Eastern Circle and the West Punjab, Sind and NWFP to the Frontier Circle Orissa was taken out of South Eastern Circle and added to the Eastern Circle. East Punjab was added on to the Delhi Circle converting it into a full Circle

The Administration—The Archaeological Department has no provincial centres, but for the purpose of carrying out archaeological work in the States it has been divided into seven circles —1 Northern Circle, Agra 2 Central Circle Patna 3. Eastern Circle, Calcutta. 4 S E. Circle, Visakhapatnam. 5 Southern Circle, Madras. 6. Western Circle, Poona 7 Delhi Circle Delhi There is a *Central Advisory Board of Archaeology* . This Board is an advisory body consisting of the representatives of Parliament, States, learned bodies—both scientific and historical—and the Central Archaeological officers.

As a result of the integration of the former princely States with the Indian Union, the Department of Archaeology looks after over 4,000 monuments of national importance. It also maintains 12 site museums. A new museum has been started at Bodhgaya.

The Functions of the Department—The Department of Arachaeology is under the charge of a Director-General. This Department is responsible for the preservation of ancient monuments of national importance and for undertaking exploration and archaeological excavations. It also assists various non-governmental institutions in conducting explorations and excavations

Archaeological Research—The works of the Department are primarily two-fold—conservation and research and exploration, and are divided into four branches, namely, *Excavation Branch, Epigraphical Branch, Chemical Branch* and *Museum Branch.*

Epigraphical Research—enjoys a unique position in India. Nowhere else has it served history so well as it has done here. India has inherited a vast legacy of epigraphical material. The number of old inscriptions discovered run literally into thousands. Inscriptions are found more commonly on metals and stones. This research is being carried out by the Epigraphical Branch.

Chemical Branch—came into being in 1917. The principal work of this department is the chemical treatment and preservation of museum exhibits and other antiquities, chemical conservations of monuments and interpretation of ancient Indian techniques through chemical analysis and scientific examination of all specimens. Besides attending to the treatment of monuments, paintings, museum exhibits and excavated objects, the Branch is engaged in evolving effective methods for the removal of algal growth from monuments and undesirable accretions from painted surfaces

Museum Branch—The development of Indian museums has been one of the important works of the Department. The progressive expansion of archaeological enterprise throughout the country gave rise to the growth of archaeological museums on excavated sites, such as, Nalanda, Sarnath The museum branch of the Department was established in 1945 to control site museums. A *National Museum* of India has been started at New Delhi. The foundation stone of the Museum building was laid by the Prime Minister on May 12, 1955.

Excavation Branch—This branch is engaged in the work of exploration and excavation all over India. These two works have laid the discoveries of many archeological sites, temples, inscriptions, images, ruins and even skeletons

Publication—Another important activity of the Department is the publication of the results of excavation and other research work. The publications of the Archaeological Survey of India have at times assumed different forms and represented various degrees of scholar-ip and merit, but they have, on the whole, constituted a noble mine information for any future historian of India. The Department is published several numbers of 'Ancient India', the bulletin of Archeological survey, upto No. 12, guide books for several monuments, *Epigraphia India, Corpus Inscriptionum Indicarum,* etc.

National Archives of India—National Archives of India which was styled as Imperial Records Department before Independence, came into existence in 1891. It is the repository of the recorded files and papers of the Government of India kept at New Delhi. This valuable mass of papers forming an important part of the nation's cultural heritage, is impressive both in quality and quantity. In many ways it is perhaps the best historical material in the world. The steel shelves of the department cover about 14 miles of shelf space and shelter 72,691 bound volumes and 3,611,000 unbound documents which lie in the building.

The contents of the National Archives include numerous documents of great historical importance. The regular series of records begin from 1748 but some interesting collections relate to earlier years. These are the nature of records, files and books of the National Archives— (i) Records of the East India Company 1752-1858 with gaps, (ii) Records of the Government of India from 1859 onwards. The latest records available were upto 1915, (iii) Records of defunct Residencies and Political Agencies in India. The books in the custody of the National Archives of India mostly belonged to the category of printed documents or selections from records and other reference books relating to the modern period of Indian history and allied subjects.

There is a Microfilm unit of the Department which takes microfilm copies of important historical documents, the originals of which cannot be acquired. This unit microfilms pages of private archives, family papers, documents and manuscripts. They cover a wide range of subjects like history, biography, state craft, administration of justice, epistolography, strategy etc.

Historical Records Commission—The Commission was set up in 1919 by a regulation of the Government of India. It is a national organisation of individuals and institutions engaged in the study, upkeep and preservation of records and historical manuscripts. The Minister of Education is the ex officio President of the Commission and the Director of National Archives is the Secretary.

Training Facilities—The National Archives of India has made considerable progress by granting research facilities to scholars and providing facilities for training in archives. The courses of training have been thoroughly revised and in addition to one year Diploma course, a short three months' course (twice a year) has been introduced with effect from 1952. To promote historical research, four fellowships are being awarded every year since 1954 to university post-graduate students.

LANGUAGES—WORLD & INDIA

World's Greatest Languages—*Chinese* Language is spoken by the greatest number of the people of the world Nearly 500,000,000 people speak Chinese or variations of it, such as Mandarin Cantonese, etc. *English* is the major commercial, scientific and diplomatic language of the world and is the most widely used second language in foreign countries It is used as a first language by more than 250 million people and is used as a second language by countless millions more. *Russian* has nearly 200 million speakers *Hindustani*, the principal language of India, is spoken by about 150 million people. Exceeding 50 million are Arabic, Bengali, French, German, Indonesian, Italian, Japanese, Portuguese and Spanish.

Indo-European—The languages of the peoples of Europe and parts of Asia appear to have come from a mother language which is generally called "*Indo European*' language The Indo-European languages are divided into Germanic Celtic, Romanco, Albania, Greek Slavic Baltic Indo Iranian and Armenian A short note on languages is given here—

Romance languages are one of the most important of Indo European languages *Latin* is the mother of the Romance languages which include Italian, French, Spanish, Portuguese and Rumanian

Celtic—includes Welsh, Briton Irish, Scottish, Gaelic Manx

Germanic—includes modern German, Dutch English, Swedish, Danish, Norwegian among its principal languages

Greek—has modern Greek as survivor of a group of historical languages

Slavic languages include Russian, Ukrainian, Polish, Czech, Baltic.

Albanian and Armenian—are classified separately in the Indo-European Group

Indo-Iranian—consists of numerous languages of middle and Southern Asia spoken by over 300,000,000 and includes Iranian Indic (to which classical Sanskrit is related) Hindi, Bengali, ,Kashmiri, Gujarati, Marathi, Rajasthani, Punjabi, Pahari Urdu Hindustani, Oriya

Dravidian—These are the languages of Northern Ceylon, Malabar, Coromandel, Baluchistan and other parts of Southern and Central India These languages are Tamil Malayalam Kanarese, Kulu, Kota, Toda, Telugu, Gondi, Kurukh, Malto, Bhil Kolani and Brahui

Hamito-Semitic—prevails in Asia Minor and North Eastern Africa. In this group are such languages as early Egyptian (later Coptic), Etheopic, Aramaic, Hibrew, Phoenician Assyro Babylonian and Arabic Many of these languages are dead but the peoples of the middle East, north-eastern Africa and Malta speak languages descended from them.

Malayo-Polynesian—includes languages of Malaya, East Indies and other islands of South-West Pacific.
Sino-Tibetan or Indo-Chinese—Chinese, Tibetan, Burmese and Siamese.
Caucasian—There are many languages in this group not clearly related. The most important of these is that spoken by the Georgian people in the southern part of the Soviet Union.
Ibero-Basque—is spoken by the Basque people of Spain and France.
Japanese and Korean.
Australian—There are about 100 different languages which are not clearly related but they are spoken by the natives of Australia.

WORLD'S LANGUAGES

The important languages of the world are estimated as follows :—

	Million		*Million*
Chinese	420	Urdu (Pakistan & India)	50
English	272	Iranian	26
Russian	200	Javanese	41
Hindi, Urdu, Hindustani &		Korean	30
Punjabi (India)	150	Marathi	27
Spanish	136	Telugu	33
German	120	Tamil	27
Japanese	95	Anamese (Indo-China)	20
Bengali (India & Pakistan)	75	Bantu (S. Africa)	45
Arabic	72	Burmese	13
French	70	Dutch	15
Portuguese	71	Gujarati (India & Pakistan)	16
Italian	57	Malayalam (India)	14
Polish	38	Siamese	16
Turkish	23	Sudanic	75

INDIAN LANGUAGES

The language returns of the 1951 Census of India makes an interesting study. The census enumerated a total of 845 languages or dialects including 720 Indian languages spoken by less than a lakh of persons each and 63 non-Indian languages.' About 97 per cent of the population speak one or the other of the fourteen languages of the Constitution.

Origin and Growth of Indian Languages—The four great linguistic families of India are (1) *Indo-Aryan*, (2) *Dravidian*, (3) *Austrio* and (4) *Sino-Tibetan.*

Indo-Aryan Languages are descended from the ancient speech of the Indo-European invaders who came to India from their original homeland in the Eurasian plains. The oldest form of Aryan speech is to be found in the Vedas believed to have been completed in the 10th century B.C. Vedic Sanskrit gradually developed into what are known as middle Indo-Aryan dialects. Between 600 B.C. and 1000

A.D.—the period of Aryan expansion, they gradually spread over northern India. The early literature of Buddhism is enshrined in Pali, one of the earlier Indo-Aryan dialects. By the tenth century A.D. the middle Indo-Aryan dialects gradually developed into modern Indo-Aryan languages.

Dravidian Languages have their home in Peninsular India and include twelve distinct languages—*Tamil, Telugu, Kanarese, Malayalam, Tulu, Kodagu, Todda, Kota, Gond, Khond, Oraon and Rajmahal.* These languages are spoken in the following regions or districts of India—south-eastern, north-eastern and south-western, the Malabar coast, Coorg (adjoining the Malabar coast), Nilgiri Hills, Central India, north-west Orissa, and Rajmahal Hills of Bengal Tamil is also spoken in the northern part of Ceylon, and Brahui in Beluchistan. Tamil, Telugu, Malayalam and Kannada are the most important among them. Tamil, the oldest member of the group, preserves a good deal of the general character and vocabulary of the ancient Dravidian speech, it has a most extensive vocabulary. Malayalam is closely related to Tamil and has borrowed considerably from Sanskrit.

Primitive tribes constituting about 1 3 per cent of the population of India speak *Austric Language*, represented in the hills and jungles of central and north eastern India These languages are said to be related to those of south east Asia. They are believed to have come to India with the invaders from the north east long before the Indo-Aryan invasion. Following are the Austric languages—

(*a*) *Kol* or *Munda* group which includes *Santhali, Mundari, Ho,* etc.

(*b*) *Khasi* in Assam and (*c*) *Nicobarese.*

Sino-Tibetian Languages are used by small tribes along the southern slopes of the Himalayas, in the north Bengal and Assam These languages mostly belong to the Mongolian race. Newari of Nepal and Meithei or Manipuri of Manipur are the most important among them.

Languages in the Indian Constitution—Indian Constitution recognises fourteen languages—namely, Assamese, Bengali, Gujarati, Hindi, Urdu, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil and Telugu. Hindi has been declared the official language of the country, but for a period of fifteen years English will also continue to be in official use. Among these 14 languages, there are in varying degrees, larger elements of identity and similarity. In their scripts and alphabets, all, except for Urdu, are variant expressions of a common Indian phonetical system.

Modern India Languages—A short description of the important modern languages is given here—

Hindi with its various branches is the third most important language of the world after Chinese and English As a regional language, Hindi may be regarded as the spoken language of eleven out of 29 States of India—Bihar, U.P., major portion of Madhya Bharat, Rajasthan, Vindhya Pradesh, Bhopal, Delhi, Himachal Pradesh and also eastern half of the Punjab. As the geographical extent of languago is very great, the masses use more than dozen allied local dialects, each one of which is equally important and is very rich in literary folk traditions. Within what is known as the Hindi-speaking area various dialects are spoken and were once cultivated as literary languages but during the first decades of the 19th century, the *Khariboli*, one of the component dialects of Hindi, emerged as the standard and accepted form of Hindi spreading over the whole of the Hindi-speaking area. It is the State language of Uttar Pradesh, Bihar and some of other States of India.

Urdu—So far as *Urdu* and *Hindi* are concerned, they are basically the same language in points of structure, grammar and syntax and there is a considerable fund of vocabulary common to both. Three factors, however, contribute to their separation. Firstly, Hindi is written in Devnagri script and Urdu in Parsian-Arabic script. Secondly, owing to various historical and sociological associations, Hindi has to be associated with Hindus and Urdu with Muslims. Thirdly, Urdu writers tend to draw upon Arabic and Persian for expanding their vocabulary and Hindi writers upon Sanskrit. Urdu originated from the dialect spoken round about Delhi. It became the spoken language of the Muslims when they settled in Delhi It was in fact at first the court or the camp language of the Mughals. In the State of Jammu & Kashmir, it is recognised as one of the State languages along with Kashmiri. In the Telangana area of Andhra Pradesh, it has been recognised as an additional language for that region, although the principal language of the state is Urdu. In Northern India, more specially in Delhi, Punjab, Uttar Pradesh and Bihar, the use of Urdu has been widely spread, though it is confined to a minority chiefly living in towns.

Bengali is the language of over 60 million people and although less than half of this number are in West Bengal, there is identity of speech and culture which links up West Bengal in India with East Bengal in Pakistan. The whole of the Bengalee people inherit a common literature, which is one of the most significant facts in modern India. It is also spoken by the majority of the people Cachar district of Assam and Tripura. It is not only the most compact language of two Bengals, but also the most progressive language of India.

Bengali literature started with some songs and poems of the Buddhist mystic inspiration, going back to the 10th century A. D. After the establishment of the British rule in Bengal, Bengali as a language came in touch with English and, as a result, a veritable renaissance took place for the intellect of Bengal. A number of very eminent writers who were leaders of thought, not only for Bengal but for the whole of India, expressed themselves through the Bengali language—beginning with Raja Rammohon Roy, Iswar Chandra Vidyasagar, Michael Madhusudan Dutt, Bankim Chandra Chatterjee and, above all, Rabindranath Tagore. The emancipation of Indian mind through literature was started in Bengal, and the galaxy of eminent novelists and other writers of the present day, among whom the name of Sarat Chandra Chatterjee deserves special mention, still hold the torch of India for rational thinking through literature.

Telugu—is one of the important members of the Dravidian group of languages and takes the third rank among the languages of India, next to Hindi and Bengali. The language seems to have branched out from the parent Dravidian tongue in the middle of the first millennium B. C.

Bhojpuri—is claimed to be the spoken language of about 4 crores of people living within an area of 250 lakh sq. miles. The districts of Saran, Champaran, Sahabad, Palamou and Ranchi (part) in Bihar and Balia, Gazipur, Banaras, Mirzapur, Gorakhpur, Azamgarh and Deoria in U. P and Jaspur and Surguja in Vindhya Pradesh comprise Bhojpuri-speaking area It is spoken by about four crores of people.

Marathi is spoken in western and central India. It covers parts of two States of India—Bombay and Madhya Pradesh. It is also spoken in Portuguese India and some parts of Hyderabad.

Gujarati is spoken in Gujarat, the northern maritime portion of Bombay and also in Baroda and adjoining places *Rajasthani* is spoken in Rajasthan and adjoining parts of central India Rajasthani has numerous dialects *Pahari* is a general name applied to Indo-Aryan languages spoken in the lower ranges of the Himalayas from Nepal in the east of Chamba.

State Languages—*Hindi* is the State language in Uttar Pradesh and Bihar as well as some other States in India In the Punjab, the two State languages are Hindi and Punjabi Urdu and Kashmiri are the State languages of Jammu & Kashmir

SPEAKERS OF PRINCIPAL INDIAN LANGUAGES

	No of people speaking	*P C of the total population*
Assamese	4 988 226	1 39
Bengali	25 121 676	7 03
Gujarati	16 310 771	4 57
Hindi Urdu Hindustani & Punjabi*	1 49 944 311	42 01
Kannada	14 471 76	4 05
Kashmiri†		
Malayalam	3 380 109	3 69
Marathi	27 049 522	7 57
Oriya	13 153 909	3 68
Sanskrit	555	00010
Tamil	26 546 764	7 4
Telugu	32 9999 916	9 22
Population returned as speaking other languages as their mother tongue	32 906 787	9 22
Total	3 56 879 394	

---

*There was no difficulty in carrying out census instructions except in Punjab, Pepsu, Delhi Himachal Pradesh and Bilaspur and in these States the returns being incorrect as regards the number of persons with Punjabi or Hindi mother-tongue

†Compartive figures about Kashmiri are not available in the 1951 census figures.

TRIBAL LANGUAGES OR DIALECTS WITH SPEAKERS NUMBERING A LAKH OR OVER

Santhali	2,811,578	Meithei (Manipuri)	485,787	Korku	170,607
Gondi	1,232 886	Banjari or Labhani	332 817	Savara	256,259
Bhili	1,160 299	Kondh	280 561	Boro Bodo	166,447
Oraon	644 042	Bhilali	264 289	Lushei	163,600
Lambadi	628 166	Garo	239 816	Paraja	146 938
Ho	599 876	Khasi	230 982	Maria	140,583
Mundari Munda etc	585 211	Kui	206 509	Koya	137 358
Vagdi	516 991			Mikir	130,746
				Total	11,531,884

OTHER INDIAN LANGUAGES OR DIALECTS WITH SPEAKERS NUMBERING A LAKH OR OVER

Marwari	4 514 737	Braj bhasha	177 847	Ajmeri	463 161
Mewari	2,014 874	Tripuri	129 379	Nepali	421 688
Dhundhari or Jaipuri	1 588 069	Saurashtra	124 186	Mewati	111 083
Bagri	920 0[illegible]	Tulu	757 624	Khatria	110 592
Chhattisgarhi	902 908	Sindhi	743 434	Nimadi	110,577
Malwi (Malvi)	886 895	Rajasthani	645 001	Bhumij	101 508
Halbi	204 912	Konkani	639 020	*Total*	17,698,041
Nimari	180 696	Kumaoni	571 401		
		Garhwali	484,261		

OTHER INDIAN LANGUAGES OR DIALECTS WITH SPEAKERS NUMBERING LESS THAN A LAKH

Total number of languages or dialects	720	**Total No of Speakers**	2,806,974

PRINCIPAL NON-INDIAN LANGUAGE SPEAKERS

Arabic	7,914	German	1 655	Persian	11,814
Burmese	3 955	Hebrew	1 209	Portuguese	6,652
Chinese	9 214	Italian	685	Tibetan	2,494
English	171 742	Malayan	703	Sinhalese	561
French	1,929				

REFUGEES IN INDIA

The Refugee Problem—The refugee problem took its concrete shape from the partition of India in 1947, though the Direct Action Day of the Muslim League in 1946 may be taken as a positive date, when immediately after Noakhali riots refugees began to move.

The magnitude of this refugee problem can be realised from the following facts : The people who came out of West Pakistan left 5,300,000 acres of land ; people who left India and went to Pakistan left India 3,850,000 acres of land. So there is a shortage of 1,450,000 acres of land. The Indian loss in house-property accounted for Rs. 5,000,000,000, whereas property left by migrants to Pakistan was worth less than Rs. 1,000,000,000, that is less than 1/5th.

The number of persons migrated to India up to 1957 from Pakistan were about 88.56 lakhs, of which 47.40 lakhs were from West Pakistan and 41.16 lakhs from East Pakistan. So far as West Pakistan is concerned, the problem of rehabilitation has almost been solved. It has therefore been decided by the Union Government to wind up the activities of the Rehabilitation Ministry in the Western region. The conditions of life in East Pakistan continue to be precarious. Due to the regulation of migration certificates, about 11,000 displaced persons from East Pakistan migrated to India in 1957. By the end of 1957-58, the total expenditure on the relief and rehabilitation of displaced persons from Pakistan amounted to Rs. 304.11 crores. For the year 1958-59 provision of Rs. 8.2 crores and Rs. 20.35 crores (excluding Rs. 3 crores for *Dandakaranya* Scheme) has been made for relief and rehabilitation of displaced persons from West and East Pakistans.

West Pakistan Refugees—About 80 per cent of the displaced persons from West Pakistan have been settled on land on ancilliary occupations and the rest in urban areas. 19 townships were setup for rehabilitation of displaced persons.

East Pakistan Refugees—The total displaced population from East Pakistan at the end of 1957 in relief camps are approximately as follows—

	No.of camps	*Population*
West Bengal	148	2,10,569
Tripura	18	32,000
Bihar	1	17,491
Orissa	1	3,897
	168	**2,64,028**

EXPENSES ON DISPLACED PERSONS

(In crores of Rs.)

	For D. Ps. from East Pakistan	*For D. Ps. from West Pakistan*	*Total*
Grants	60.13	80.11	140.24
Loans	33.37	25.39	58.76
Housing	30.38	59.82	90.20
Establishment	.45	1.95	2.4
Compensation	—	74.00	53.12
Loans by Rehabilitation Finance Administration upto 1957	4.28	7.97	12.25
Miscellaneous	—	.01	0.01
Dandakaranya Scheme	.25	—	.25
	128.86	249.25	378.11

THE GOVERNMENT HELP—The help from the Government came through the following Schemes—(1) *Relief*, (2) *Compensation*, (3) *Rehabilitation*, (4) *Other kinds of relief* (5) *Financial aid on reasonable terms*.

The *relief* came in the forms of camps, homes and infirmaries for displaced persons. As a measure of interim relief, the Government grants maintenance allowance (upto Rs. 100) to displaced persons who because of old age, infirmary, disease or other causes are unable to make a living for themselves and have immovable urban property in Pakistan.

Compensation—The Government of India had promised compensation to the displaced persons for the loss of property in Pakistan. In spite of Karachi Agreements of 1949, no further satisfactory agreement could be reached with Pakistan. So the Government of India passed *Displaced Persons (Compensation and Rehabilitation) Act* in 1954 which gave the Government the authority to acquire evacuee properties for purposes of relief rehabilitation and compensation drawn up according to this Act. But this scheme has been carried out for West Pakistan refugees only.

Rehabilitation—For the settlement of displaced persons in the rural and urban areas and in gainful employment the Government have undertaken the following Schemes—(1) quasi-permanent or temporary allotment of evacuee agricultural land, (2) settlement on culturable waste land reclaimed by various States, (3) Loans, assistance to business and industry, technical and vocational training and employment facilities under Government.

Other kinds of relief—are Emergency Relief Organisation, and Prime Minister's National Relief Fund. An all-India organisation known as Emergency Relief Organisation has been established to provide relief in times of floods, famines, earthquakes, etc. The organisation will function at the Central State and district levels.

Rehabilitation Finance Administration—was established in 1948 by an Act of Parliament with the main objective of extending financial aid on reasonable terms to migrants from Pakistan and to facilitate their settlement in business or industry.

Development of Dandakaranya—As West Bengal, Assam and Tripura have already been saturated, the Government of India have decided to set up a Central Authority for the speedy development of the Dandakaranya area. To be known as the *Dandakaranya Development Authority*, the high-power body will have a wholetime Chairman and the Chief Administrator, Dandakaranya, senior agricultural and engineering experts and the representatives of the States concerned as its members. The setting up of the Authority is one of the steps taken by the Union Ministry of Rehabilitation to implement the recent decision to close down all D. P. Camps in West Bengal by July 1959 and provide work, shelter and other amenities to displaced families outside West Bengal. With an area of about 80,000 sq. miles, Dandakarnya is a vast contiguous and compact region lying within the territorial limits of Bombay, Madhya Pradesh, Andhra Pradesh and Orissa. It is rich in forest and mineral resources, has a sparse population, mostly Adivasis and is undeveloped.

PUBLIC HEALTH OF INDIA

PUBLIC HEALTH ADMINISTRATION—The public health administration is mainly a state subject, but Central Ministry of Health exercises sole executive power in regard to subjects in the Union List and powers in relation to the subjects in the Concurrent List. So far as the States are concerned, the functions of the Ministry of Health are purely advisory and one of co-ordination. In general, the Central Government's functions in regard to matters in the State list are co-ordination, collection and supply of information, supply of expert technical assistance and advice. It keeps close liaison with foreign countries and international health organisations like WHO, UNICEF, Red Cross, etc. The Centre is, however, directly responsible for state subjects concerning Centrally administered areas of Manipur, Delhi, Tripura and Himachal Pradesh. The Centre also administers quarantine in ports, enforces standards in the quality of imported drugs, supervises and controls central health institutions and promotes research through the Indian Council of Medical Research and other bodies. It also contributes statistical information to the State Governments and their health departments.

In short, the Constitution has charged the Union Government directly with the responsibilities only in the field of international health, control of infectious diseases and standards of higher technical education. Medical relief and preventive work have been left to the States, while all other matters are in the Concurrent List, that is, both the Central and the State Governments can legislate on them.

The Central Ministry of Health comprises the main Ministry and the Directorate General of Health Services functions as an attached office. The Directorate General of Health Services is the executive organisation for the Ministry in the entire medical and public health field. There are health organisations operating in all important sea and air ports to prevent the spread of contagious diseases. There are Drugs Controller and four Assistant Drugs Controllers to ensure that drugs imported in the country conform to the required standards. The Indian Council of Medical Research formulates and organises, directly or indirectly through the research institutions, schemes relating to research on health problems. Anti-malaria or similar operations are under the Malaria Institute of India Some Institutions are engaged in the manufacture of sera and vaccines. There is also an adviser on tuberculosis and another on maternity and child welfare attached to the Directorate General of Health Services.

MINISTRY OF HEALTH—With the advent of independence, a Ministry of Health has been established at the Centre. This Ministry is directly responsible for the health of the Centrally Administered Areas. The States are autonomous in respect of medical relief and public health. The Centre, however, advises the States and keeps in close touch with them in their endeavours to build up the health of the people committed to their charge.

In wider aspect, the functions of the Central Ministry of Health may be summarised as follows :—

(1) Administration of Central Health Institutions.

(2) Promotion of medical research, regulation and development of medical, pharmaceutical, dental and nursing professions in consultation with State Governments and statutory councils and laying down the standards of education for these professions.

(3) Establishment and maintenance of drugs standards in consultation with State Governments and prevention of adulteration of food.

(4) Promoting investigations into particular health problems.

(5) Promoting through Central Council of Local Self-Government or otherwise, discussions and exchange of information on problems relating to Panchayats and other local bodies.

(6) International health relations and administration of port quarantine.

PROBLEM OF PUBLIC HEALTH IN INDIA—It has been estimated that nearly 7,50,00,000 persons suffer from malaria in any normal year and it takes a toll of at least 300,000 lives. It is estimated that about 25 lakh active cases of tuberculosis exist annually and that 5 lakh deaths take place each year from this cause alone. Among the countries for which statistics are available, India ranks high as one of the largest reservoirs of infectious diseases. Malnutrition and undernutrition reduce the vitality and power of resistance of an appreciable section of the population. The food consumed is insufficient to provide the necessary energy requirements in the case of 30 per cent of families, and the diet is almost invariably ill-balanced and there are, in terms of food factors, a deficiency of fats, vitamins and proteins of high biological value. Widespread adulteration of foodstuffs is doing insidious harm to the health of the people. Water-supply is totally inadequate. Only 6 per cent of the towns in India have protected water supply which serves 6.15 p.c. of the total population and 48.5 per cent of the urban population. Of the 48 cities with a population of over a lakh each, only 23 have sewage systems.

Due to this extremely low level of health, all Health Schemes in India have been generally divided under the following large groups—(1) Control of disease (2) Medical education (3) Training and research (4) Rural health units (5) Water supply and drainage (6) Family planning and (7) Health education.

MEDICAL & HEALTH EDUCATION—The medical colleges were first opened in Madras and Calcutta in 1835 and recognised by the Royal College of Surgeons in 1845. Since then, there has been gradual progress of medical education in India. Practically all medical colleges offer a Doctorate of Medicine, Master of Surgery, etc. Several of the colleges are offering D.P.H. or equivalent. There is also a special provision for military medical students of the Indian Medical Department. On the recommendation of the Inter-University Board, an All-India Council of Post-Graduate medical education has been set up. The Council prescribes standards for post-graduate medical education in the universities, and advises them in order to secure uniformity of standards throughout the country.

The Directorate General of Health Services is trying to spread health education among the people through cinema shows, distribution of posters, pamphlets, radio talks, etc. It has been decided to set up a *Central Health Education Bureau* to produce filmstrips, posters, models, literatures, etc.

At present there are 36 medical colleges, 2 medical schools, 6 dental colleges and 5 other institutions for training in the allopathic system of medicine Medical Schools are being raised to the status of colleges. Departments of some medical colleges are being upgraded to provide post-graduate training for select doctors. Facilities for the training of nurses exist in practically all major hospitals in the country and in nursing colleges at Vellore and New Delhi.

DRUGS AND MEDICAL STORES—The control over the quality of drugs, *i.e*, *Drugs Standard Control*, imported, manufactured, sold or distributed in the country is exercised under the *Drugs Act*, 1940 and the Rules thereunder. The Central Government is responsible for the control over the quality of all imported drugs and of drugs manufactured or distributed in the Union Territories. The Drugs Controller (India) is the controlling officer appointed by the Government of India for this purpose. The responsibility for the control over standards of drugs manufactured, sold or distributed in States rests with the State Governments. The control over imported drugs is exercised through the Assistant Drugs Controllers at Bombay, Madras, Calcutta and Delhi and the Technical Officer, Cochin. *The Drugs Technical Advisory Board* has been constituted under the Drugs Act of 1940. The Board is an important statutory body, advising Central and State Governments on technical matters arising out of the administration of the Drugs Act of 1940. *The Drugs Consultive Committee* has been constituted under Section 7 of the Drugs Act. *The Indian Pharmacopoeia Committee* which was set up in 1948 prepared the First Indian Pharmacopoeia which was published in 1955. *The Central Drugs Laboratory, Calcutta,* is a statutory institution set up under the Drugs Act of 1940, to act as official referee in matters of dispute regarding the composition of such drugs as are referred to the Laboratory by Law Courts and Customs authorities. As a result of the large scale use of the costly patent and proprietary medicines, both imported and locally manufactured, the medical treatment has become costly. *A National Formulary Committee* has, therefore, been set up to draw up a National Formulary containing a list of essential combinations which alone should be allowed to be imported or manufactured in the country. *Medical Stores Depots and Factories* at Madras, Calcutta, Bombay and Kurnul continue to supply medical stores to their indentors, which are mainly hospitals and dispensaries run by the State Governments, local bodies, etc. The stores are suppliers on a 'no profit no loss' basis. *The Training of Trade Representatives in Government Laboratories* are being continued, though the response is not encouraging. *The Pharmacy Council of India* is a statutory body constituted under Sec. 3 of the Pharmacy Act of 1948. Its functions are to regulate the education of pharmacists and the profession of pharmacy. State Pharmacy Councils have been constituted in several States. *The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954,* came into force on the 30th April, 1954, which prohibits the advertisement of drugs and magic remedies for certain specified ailments, etc.

DEVELOPMENT OF INDIGENOUS SYSTEMS OF MEDICINE —After much discussion by the National Planning Committee, Planning Commission and by various special committees, such as Chopra Committee, Yodh Committee, Pandit Committee, Homoeopathic Enquiry Committee and by successive Health Ministers' Conferences and the Central Health Council, the Government of India have decided to recognise only the modern system of medicine, because it is international in scope and has attained highest standard of development. But the well-settled policy of the Government is to give all possible help and encouragement to the indigenous and Homoeopathic systems of medicine and incorporate from them contributions of approved value in the existing system of medicine. An Adviser on Indigenous Systems of Medicine was appointed in 1956. The Government of India have established the *Central Institute of Research in Indigenous Systems of Medicine and the Post-Graduate Training Centre* in Ayurveda at Jamnagar. Central assistance has been given to the State Governments for upgrading and establishment of new colleges in these Systems. In the first Five-Year Plan, the Ministry of Health made a provision of Rs. 37.5 lakhs for the purpose of giving grants towards research schemes in indigenous systems of medicine. A sum of about Rs. 12 lakhs was sanctioned under this scheme. Due to various reasons the amount provided in the Plan could not be fully utilized. In the second

Five-Year Plan of the Central Government, a provision of Rs. 100 lakhs has been made for the development of indigenous systems of medicine including ayurveda, unani, homoeopathy and nature cure. A provision of Rs. 521.83 lakhs has also been made in the States' Plans for the development of indigenous systems of medicine , including a sum of Rs. 221.49 lakhs earmarked for the improvement of existing colleges and the establishment of new colleges in indigenous systems of medicine. For advising the Government of India on the development of indigenous systems of medicine. the Ministry of Health have appointed an Advisory Committee for indigenous systems of medicine.

BOARDS, ASSOCIATIONS, COUNCILS, ETC., FOR ALL-INDIA PUBLIC HEALTH—Below is given a list of boards, associations, councils, etc., of Public Health for all India mostly under Government auspices—

Central Council of Health—was started on August 9, 1952 under Article 263 of the Constitution. This Central Council of Health consists of the Union Health Minister as Chairman and Health Ministers of all the States as Members. It considers and recommends broad lines of policy in regard to matters concerning public health in all its aspects, such as the provision of remedial and preventive care, environmental hygiene, nutrition, health education and promotion of facilities for training and research, etc. Co-ordination and integration of work at administrative levels, has, in a large measure, been achieved through the Central Council of Health.

Central Advisory Board of Health—was started in 1937, in which all State Governments are associated. It provides a forum for the purpose of discussing and formulating of public health policy and also to ensure co-operation between the Centre and the States and between State and State.

Indian Nursing Council—was inaugurated at Delhi on May 19, 1949. One of the main functions of the Council is to lay down minimum standards for the training of nurses. The Indian Nursing Council has been vested with the power to inspect training institutions and examination. The main object of the Council is to establish a uniform standard of training for nurses, midwives and health visitors, etc. Keeping in view this purpose, the Council has prescribed a syllabus for training courses in general nursing and midwifery, for auxiliary nursing-midwives, health visitors and the B.Sc. and post-graduate courses in nursing.

Indian Medical Association—This is an all-India organization of medical practitioners of India founded in 1928-29 for the purpose of looking after the interest of medical education, public health and the medical profession in India.

Medical Council of India—was constituted in 1953 under the Indian Medical Council Act of 1953. The Council prescribes the minimum standard of medical education in medical institutions. It satisfies itself about the adequacy of the staff, equipment, accommodation, etc., provided in these colleges. If these are satisfactory, the Council recommends degrees, awarded by various universities (to which the medical colleges are affiliated), to the Government of India for recognition by inclusion in one of the schedules of the Indian Medical Council Act.

Central Committee for Food Standards—The main functions of the Committee are to advise the Central Government and State Governments on matters arising out of the administration of the Prevention of Food Adulteration Act, 1954 and to carry out other functions enumerated in the Act.

Drugs Technical Advisory Board—Its functions are to advise the Central Government and the State Governments on technical matters arising out of the administration of the Act.

Indian Council of Medical Research—Prior to 1947, medical research in India was confined mostly to researches undertaken by a few specialised institutions and through a grants-in-aid programme of the Indian Research Fund Association established in 1912. National Government, however, took the early steps to reorganise medical research on a sound footing. The erstwhile Indian Research Fund Association was reoriented under its new name, the *Indian Council of Medical Research.* The Council today is the agency through which Central Government has organised planned research in the country. Its research work embraces almost all the fields of medical service. This Council works for research in the field of medicine and public health. The Government of India pay an annual grant to this Council for its research activities.

Provincial Medical Councils—began to function from 1942 when the first Provincial Medical Council was started in Bombay. It is now functioning in all the States. The Provincial Councils keep register of qualified practitioners and supervise medical education and inspect examinations and exercise disciplinary powers over medical practitioners, and also advise local Governments in regard to recognition of various medical qualifications.

Dental Council of India—With the passing of Indian Dentists Act of 1948, the Council was inaugurated on May 14, 1949 for the development of dental training and practice of the profession through the establishment of the Dental Councils at the Centre and in the States, for the organization of dental services for the people in urban and rural areas.

This Act was enacted to ensure that only properly qualified dental surgeons were registered and allowed to practise dentistry. There are now six dental colleges—2 in Bombay, one each in Amritsar, Lucknow, Calcutta and Madras.

All-India Council of Post-Graduate Medical Education—has been constituted to prescribe standards for post-graduate medical education in the universities and offer suggestions to evolve uniformity of standards throughout the country.

Nutrition Advisory Committee—was established in 1938 and consists of the experts, including the Chairman. The nutrition policies are as follows—(1) control of specific nutritional diseases, (2) protection of vulnerable groups of the population, (3) organisation of nutrition work as an integral part of the work of the State Health Department. Research problems of nutrition have been under way in India since the beginning of the century. The Nutrition Research Laboratories were established in 1929

The Central Health Education Bureau—was sanctioned in October 1955 to deal with health publicity part of the health education work. The Health Publicity Section of the Bureau undertakes to prepare health pamphlets, folders leaflets, posters, booklets, etc. The Film Unit of the Bureau has films and film strips

The Central Medico Legal Advisory Committee—was set up in 1955 to advise the Central and State Governments on matters pertaining to medico legal procedure and practice in India and to promote the development of new and modern techniques in the field of medico-legal work

Central Health Service Scheme— A Central Health Service Scheme was constituted in 1956 It is composed of all existing class I and class II medical posts and all such posts which may be created later under the control of the Central Government, other than those under the Ministries of Railways and Defence

Voluntary Organisations—The following are the important voluntary organisations associated with local activities—(1) *Indian Red Cross Society*. (2) *St John's Ambulance Association* (3) *British Empire Leprosy Relief Association* (4) *Mission of Lepers*, (5) *Association for the Prevention of Blindness Bengal* (6) *Tuberculosis Association of India* (7) *International Health Division of the Rockefeller Foundation in India*

PREVENTION & CONTROL OF MAJOR AND TROPICAL DISEASES—In 1937 a movement was started against *tuberculosis* which was assuming an alarming proportion every year. It is estimated that nearly 25 lakh people suffer from the disease and about 5 lakhs die of it annually A sum of Rs 11 crores has been allotted under the Second Plan to combat and control the menace It is being carried in mass scale since April 1951

Tuberculosis—The B C G Vaccination Programme was started in India in 1918 with the help of International T B Campaign and later of WHO and UNICEF By 1957, over 10 crores of persons were tested and about 3.5 crores of them vaccinated The Central B C G. organisation has been assisting State Governments in the organisation of B C G Vaccination programme The BCG Vaccine Laboratory was started by the Government of India in 1948 at Guindy (Madras) This laboratory is working according to the international standard and is now the largest single supplier of vaccine in the world The T B Demonstration and Training Centres at New Delhi Patna and Trivandrum established with the assistance of WHO/UNICEF, continue to function The additional T B Demonstration Centres at Madras and Nagpur were opened in 1956

The Tuberculosis Association of India is the largest voluntary organisation in the country engaged, since its establishment in 1939, in anti tuberculosis activities in a scientific and co-ordinated manner

National Filaria Control Programme—was started in 1954 55. The measures for the control consist of (*a*) mass administration of drugs to, so far possible, all the individuals in a filarious community and (*b*) anti-mosquito measures against adults and/or larvae dependent on the rural/urban nature of the living conditions. The assistance provided by the Technical Co-operation Mission in the shape of supplies of insecticides and transport is being received by the Government of India and supplied to participating States free of cost.

Malaria is a serious health problem throughout India. The Government of India launched a *National Malaria Control Programme* in 1953. The work is being carried on by the Malaria Institute of India collaboration with the U.S Technical Co-operation Mission to India and State Anti Malaria organisations. The programme is operated through a number of Malaria Control Units, each of which is designed to protect a population of one million Its work involves carrying on indoor insecticide spraying and provision of free anti Malaria drugs for the treatment of the malaria patients encountered by the staff. The other organisations that have helped in this venture are U.N. International Children's Fund WHO, Rockefeller Foundation. On April 1958 National Malaria Control Programme in India was converted into National Malaria Eradication Programme. A decline of [illegible] per cent in the incidence of malaria has been recorded in the [illegible] of two years 1953-54 to 1956-57 as a result of the National Malaria Control Programme.

It is estimated that there are over 15 lakh leprosy cases in India Andhra Assam, Bihar, Madhya Pradesh, Madras, Kerala and certain parts of Uttar Pradesh and Bombay are areas of high incidence The *Mission of Lepers* is the largest voluntary organisation for anti leprosy work. It was started in 1875 and has 95 institutions affiliated to it *Hind Kusht Niwaran Sangh* (formerly British Empire Leprosy Relief Association) is also doing excellent anti-leprosy work The *Gandhi Memorial Trust* has established a leprosy work The Government of India have taken over the Lady Willingdon Leprosy Sanatorium, Chingleput and the Silver Jubilee Children's Clinic at Saidapet on the 5th January, 1953 and have established the Central Leprosy Teaching and Research Institute at Chingleput, Madras. The scheme started during first Five Year Plan for the control of leprosy is being carried out At present there are 4 treatment and study centres and 30 subsidiary centres in various states

The problem of *cancer* is of such vast proportion that one Research Centre for the whole country is inadequate to tackle the varied problems connected with it So the Government is utilising all cancer research institutions of the country for treatment and research of cancer The Government has taken over the Chittaranjan National Cancer Research Centre, Calcutta. The Indian Cancer Research Centre, Bombay, which was opened in 1952, is an important research institute *The Human Variation Unit* which is attached to the Indian Cancer Research Centre, Bombay was started in 1953 with the object of making use of the enormous diversity of the people of India to study some of the problems of human heredity. The Tata Memorial Hospital, Bombay has been taken over by the Government of India

INDIA AND THE INTERNATIONAL ASSISTANCE—India is a member of the World Health Organisation since 1948. India has been receiving striking assistance from the *World Health Organisation* and *U. N. International Children's Emergency Fund.* Help from these organisations generally takes the form of expert advice for improving existing services, medical literature, fellowships and equipment. They have done much to control and cure tuberculosis, venereal diseases, malaria and improve child health in this country. India has received assistance from WHO for Malaria Control Programme, B.C.G. Campaign which now extend to every part of India. The D.D.T and Anti-Biotic Production Plants have been established with WHO and UNICEF help. Assistance has also been received in fighting yaws and filaria, for starting or strengthening various departments at training institutions like the College of Nursing, New Delhi and similar institutions in Madras, Bombay and Calcutta, the Medical Colleges at Bombay and Trivandrum and the School of Tropical Medicine, Calcutta. WHO Fellowships have enabled selected candidates to receive valuable training abroad in various subjects concerning medicine and public health. In the implementation of programmes in India, the assistance given by the W.H.O. in 1956 amounts to U.S. $659,960, and for 1957 they have budgeted $ 2,847,345.

UNICEF is a specialised agency of the U.N.O., offering assistance in health programmes for expectant and nursing mothers and children. The assistance is normally given in the form of equipment and supplies.

The Government of India continues to be the member of the *International Hospital Federation* which facilitates the exchange of ideas regarding the organisation of hospitals and improvement in hospital administration.

TEN-YEAR HEALTH PLAN—All-India Health Survey and Development Committee (Chairman, Sir Joseph Bhore) announced on Dec. 25, 1945 a comprehensive ten-year national health plan for India costing Rs. 1,000 crores.

The scheme which takes the village as the nucleus for health organisation, provides for :—

1. Primary centres in every village with a dispensary containing 5 beds. Each group of villages with a population of 20,000 will be in the charge of a trained doctor with a woman doctor as well as a staff of 34. Each group of three primary centres will have 30-bed hospital ; in addition there will be 2 doctors, 2 public health nurses, and 4 midwives for the villager home. Each primary unit is to have a health committee.

2. Secondary centres for a population of 50,000—60,000 with specialist staff and hospital and laboratory facilities of a higher order than those in the primary centres, whose work they will supervise.

3. District centres with a still higher type of health organisation, each district hospital having 200 beds and being able to provide medical and surgical aid of a high order.

Provincial Health Departments, while supervising in general the health services of each State, are to interfere as little as possible

with primary and secondary organisations and to encourage them to act independently and display initiative in tackling their problems.

The estimated capital expenditure is Rs. 163 crores in first five years and Rs. 200 crores during second five years, with a recurring annual expenditure of Rs. 40 crores during first half and Rs. 81 crores during second half of the programme.

CENTRAL LABORATORIES & MEDICAL RESEARCHES, ETC.

All India Institute of Medical Science, Delhi—has been started at Delhi under the All India Institute of Medical Science Act of 1956 from 15th Nov., 1956. The Institute will comprise a medical college, a dental college, a nursing college, a post-graduate teaching centre and a 650-bed hospital and rural-urban organisation to provide centres for field work in New Delhi at an estimated non-recurring cost of Rs. 479.93 lakhs.

All India Institute of Hygiene and Public Health, Calcutta—Established in 1932 with the aid of an endowment from Rockefeller Foundation which provides the scheme with the present building and its initial equipment. The Government of India allow a grant of Rs. 3,00,000 per year. The object of the Institute—(1) the training of public health personnel, qualifying students for public health diploma and (2) pursuits of research on several aspects of public health including study of diseases like malaria, etc.

Serological Laboratory, Calcutta, was established in 1914. The serological work relating to all States is done by the Serologist and Chemical Examiner to the Government of India. He determines by serological means the origin of blood, human or animal, causes of bleeding, injury, menstruation or parturition and grouping of blood.

School of Tropical Medicine, Calcutta (1932)—The School and the Carmichael Hospital for Tropical Diseases has the following departments:—(1) Tropical Medicines, (2) Bacteriology and Pathology, (3) Protozoology, (4) Entomology, (5) Pharmacology, (6) Chemistry, (7) Anaemia and respiratory diseases department, (8) Helminthology, and (9) Public Health Laboratory Practice.

Haffkine Institute, Bombay (1900)—The Institute acts as a centre for the manufacture of plague vaccine and cholera vaccine for the whole of India and a centre for the manufacture of anti-rabic vaccine for Bombay Presidency. It is also manufacturing sulpha drugs.

B. C. G. Vaccine Laboratory, Guindy—has been started in K. E. M. Hospital by the Union Government at Guindy, Madras in 1948. The laboratory manufactures B. C. G. vaccines and supplies these drugs to the State Governments. It is now one of the three big laboratories in the world. The laboratory is now producing, on an average, six lakh doses of B. C. G. vaccine every year.

Central Research Institute, Kasauli (1906)—provides facilities for research. Vaccines for cholera, T. A. B. rabies, autovaccines, diptheria toxid and anti-toxin, snake anti-venom, tetanus anti-toxins are the special products manufactured here. The Institute also undertakes research work relating to cholera, typhoid, rabies, tuberculosis and snake bites

Hospital for Mental Diseases, Ranchi—is now under the direct control and management of the Central Government A charge of Rs 2,033 per annum per bed is payable by the contributing States, while for other seats the charge per bed is Rs 100 Rs 320 and Rs 200 per month for class 1 2 and 3 patients It is being reorganised as model centre of treatment and training in psychiatry

Central Leprosy Teaching and Research Institute, Chingleput—is now controlled by the Government of India

Hindustan Antibiotics, Ltd, Pimpri— manufactures penicillin The factory will be able to meet almost the entire demand for penicillin in the country

D D T Factory, Delhi—is now producing D D T from March 1955

All India Mental Health Institute, Bangalore (1954)—This Institute was inaugurated on August 6, 1954 Besides promoting post graduate studies and research in mental health, it advises the Government of India and the States on the organisation of mental health service and act in co-ordination with national and international agencies on mental health In 1955 the course for the Diploma in Psychological Medicine and the training course in Clinical Psychology have been started at the Institute

King Institute of Preventive Medicine, Guindy Madras (1903 4)—for manufacture of vaccine therapeutic sera, vaccine lymph, blood bank, etc, and also research work

Pasteur Institute of Southern India (1907) Coonoor.

King Edward VII Memorial Pasteur Institute and Medical Research Institute (1907) Shillong

Pasteur Institute, Calcutta— This institute is a part of School of Tropical Medicine

Pasteur Institute, Bombay—This is a part of Haffkine Institute, Bombay

Malaria Institute of India Delhi (1939)—conducts research into the various aspects of the malaria disease and evolves appropriate techniques for controlling the havoc wrought by it The institute trains personnel to undertake anti malarial operations by providing short courses of training for them The trained personnel conduct field operations and carry the fight right into the heart of the 'enemy's territory The research work carried on at the Institute covers parasitology chemotherapy pathology and control of malaria and investigation on the bionomics of mosquitoes insecticides and larvicides

Virus Research Centre, Poona was opened in 1953 for the study of various infections in relation to human health in India and in S E Asia region It is maintained jointly by the Indian Council of Medical Research the Rockefeller Foundation, the Government of India and the Bombay State Government

Indian Veterinary Research Institute, Izatnagar (Barielly)—Started in 1893, it is now a fully equipped research institute for veterinary research. It also manufactures protective sera and vaccines. It has a branch station at Mukteswar. A post-graduate college in Animal Sciences has been started at the Institute in 1958. The College which will impart training in animal nutrition, animal genetics, veterinary parasitology, pathology, bacteriology and physiology for the M. V. Sc. degree is affiliated to Agra University.

Nutrition Research Laboratory, Coonoor—conducts research on problem of nutrition and allied problems and acts as advisory bureau on all questions of nutrition. This Laboratory is being shifted to Hyderabad.

Central Institute for Research on Indigenous Medicine, Jamnagar—has been started by the Government of India in 1953. The Institute has a dual function to perform : firstly, to promote research in indegenous systems of medicine and secondly to provide facilities for the training of workers in methods of such research. The Government of India has established a Post-Graduate Training Centre in Ayurveda at Jamnagar.

Vallabhbhai Patel Chest Institute, Delhi—has been newly established mainly for conducting research in diseases of the chest and training doctors in that line. Successful candidates receive the diplomas in tuberculosis diseases (D.T.D.) from the Delhi University.

Penicillin and D.D.T. Factories, Pimpri (Poona) and Delhi respectively have gone into production.

The College of Nursing, New Delhi—was established in 1946 by the Government of India. There is Honours B.Sc. Course in Nursing Examination of the Delhi University and also Post-certificate Nursing Administration and Teaching Course Examination.

Willingdon Hospital and Nursing Home, New Delhi—This Hospital was taken over by the Government of India from New Delhi Municipal Committee in 1954.

Safdarjang Hospital, New Delhi—was taken over by the Government of India in 1954.—A venereal diseases' training centre has been established here.

Sir Tata School of Social Service, Bombay—The only institution in India which provides facilities for the training of social workers in the fields of family welfare, adult delinquency and industrial and labour problems.

Indian Cancer Research Institute, Bombay—was opened in 1952 with the object of instituting post-graduate teaching and research in cancer and allied subjects.

	BIRTHS IN INDIA			DEATHS IN INDIA		
	Estimate mid-year populatic	*Live Bir (in thou.*	*Live bir per 1000*	*Total De (in thou*	*death ra per 1000 populatic*	*Infant d per 1000 births*
1949	256,331	6,762	25.9	4.044	16.4	123
1950	269,897	6,728	24.5	4.333	16.0	127
1951	273,170	6,847	24.9	3,950	14.4	123

1952	276 609	7 073	24 4	3,844	13 8	116
1953	280 006	6 969	21 8	4 057	14 4	119
1954	283 10[illegible]	[illegible]952	25 1	3 566	12 5	115
1955	286 800	5 856*	27 0	2 521*	11 7	100
1956			27 1		11 6	.
1957						

(Monthly Abstract of Statistics August, 1958)

NUMBER OF MEDICAL PRACTITIONERS IN INDIA, 1956

Registered medical practitioners	70 1[illegible]	Nurses	22 386
Vaids, Hakims & unregistered practitioners	81 8 7	Midwives	26 923
		[illegible]	4 300
Compounders	5[illegible] 6	Dentists	3 283

HOSPITALS & PATIENTS

	No of Hospitals & Dispensaries	No of Patients		No of Hospitals & Dispensaries	No of Patients
1947	[illegible]	1 019 772	1951	[illegible]	8[illegible] 100 4 4
1948	1[illegible]	1 [illegible]	1[illegible]	[illegible]	110 1[illegible]8 755
1949	[illegible]03	[illegible] 1 6	[illegible]	[illegible]	11[illegible] [illegible] 35
1950	1 19	[illegible] 71 [illegible]	1[illegible]	[illegible]	11[illegible] [illegible]70 491
			1[illegible]	[illegible]	12[illegible] [illegible]0 320

INDIAN EXPECTATION OF LIFE

1951	Census according to actuarial report of Census	Males	[illegible] years
		Females	[illegible]
1951	(by Kingsley Davis in his book *Population of India and Pakistan*)	Males	[illegible]09
		Females	1[illegible]
		Males	26 91
1931	(Official estimate by Mr Vaidyanathan)	Females	[illegible] 6

FOOD & NUTRITION

Calory requirements in India

	Net Calories	Children	
Man (120 lb)		Under 1 year	100/kg
Light or sedentary work	2 400	1 to 3 years	900
Moderate work	3 000	3 to 5 years	1200
Very hard work	3 600	5 to 7 years	1400
Woman (100 lb)		7 to 9 years	1700
Moderate work	2 100	9 to 12 years	2000
Moderate work	2 500	Adolescents	
Very hard work	3 000	12 to 15 years	2400
Pregnancy	2 100	15 to 21 years	2400
Lactation	2 700		

(Nutrition Advisory Committee of Indian Research Fund Association)

COMPOSITION OF A BALANCED DIET

	Oz		Oz
Cereals	14	Milk	10
Pulses	3	Sugar and Jaggery	2
Green leafy vegetables	4	Vegetable oil ghee, etc	2
Root vegetables	3	Fish and Meat	3
Other vegetables	3	Eggs	1 egg
Fruits	3		

*Excludes Bihar, M P and Orissa

MEDICAL EDUCATION

Andhra Pradesh
Andhra Medical College Visakhapatnam
Gandhi Medical College Hyderabad
Medical College Guntur
Medical College Kurnool
Osmania Medical College Hyderabad
Assam
Medical College Dibrugarh
Bihar
Prince of Wales Medical College Patna
Darbhanga Medical College Laheriasarai
Medical College Ranchi
Bombay
Grant Medical College Bombay
Seth G S Medical College Bombay
T N Medical College Bombay
B J Medical College Ahmedabad
B J Medical College Poona
Medical College Baroda
Medical College Aurangabad
M P Shah Medical College Jamnagar
Medical College Nagpur
Kerala
Medical College Trivandrum
Medical College Kozhikode
Madhya Pradesh
Medical College Jabalpur
Medical College Indore
Medical College Gwalior
Medical College Bhopal
Madras
Madras Medical College Madras
Stanley Medical College Madras
Christian Medical College Vellore
Madurai Medical College, Madurai
Mysore
Medical College Manipal, Mangalore
Medical College Mysore
Medical College Bangalore
Medical College Hubli
Orissa
Sriram Chandra Bhanj Medical College, Cuttack
Punjab
Medical College Amritsar
Christian Medical College Ludhiana
Medical College Patiala
Rajasthan
Sawai Man Singh M College, Jaipur
Uttar Pradesh
King George's Medical College Lucknow
Sarojini Naidu Medical College Agra
G V S Medical College, Kanpur
West Bengal
Medical College Calcutta
R G Kar Medical College Belgachia
N R Sircar Medical College Calcutta
National Medical Institute Calcutta
Bankura Sammilani Medical College, Bankura
Delhi
Lady Hardinge Medical College, New Delhi
All India Institute of Medical Sciences, New Delhi
Pondicherry
Medical College Pondicherry

BROADCASTING IN INDIA

EARLY HISTORY—Organised broadcasting in India was started by a private concern called the "Indian Broadcasting Company", which set up stations at Bombay and Calcutta in 1927. This veuture, however, did not succeed and the Company went into liquidation in 1930. Radio dealers and owners of radio sets urged Government to take some action and Government of India, after a good deal of hesitation, agreed to run these stations as an experimental measure for a short time. It was, however, in 1932, decided to continue under the administrative control of the Department of Industries and Labour. In the course of next few years, this service assumed considerable importance. In March 1935, the broadcasting organisation was constituted into a separate Department under a Controller of Broadcasting to work under the Department of Industries and Labour. In June 1936 All India Radio replaced the earlier designation of the Indian State Broadcasting Service. War gave a new fillip to broadcasting. Government was anxious to keep the country informed of latest developments. News Services Division was consequently considerably strengthened and a number of high power transmitters were installed in Delhi for external service broadcasts. A development plan for broadcasting was also drawn up in 1946. Partition of the country in 1947 reduced the number of stations from nine to six, but opened new possibilities for this medium to help make India an informed democracy.

THE ORGANISATION—Broadcasting is the exclusive responsibility of the Central Government under the present Constitution. All India Radio is under the Ministry of Information and Broadcasting. The whole organisation is controlled by a Director-General who is assisted by several Deputy Directors-General and a Chief Engineer. The executive functions are carried out by the stations situated all over the country.

There are at present 28 stations. They cover all important linguistic regions of the country. Each station is under the charge of a Station Director or an Astt. Station Director with an engineering officer to help him in technical matters. The total number of medium and shortwave transmitters is 31 and 19 respectively. The radio stations are grouped in four regions, namely, North, West, South and East. The list of stations given below :—

North—Delhi, Lucknow, Allahabad, Patna, Jullundur, Jaipur, Indore, Simla, Bhopal, Ranchi, Srinagar and Jammu.

West—Bombay, Nagpur, Ahmedabad, Dharwar, Poona and Rajkot.

South—Madras, Tiruchirapalli, Vijayawada, Trivandrum, Kozhikode, Hyderabad and Bangalore.

East—Calcutta, Cuttack and Gauhati.

PROGRAMMES—Programmes are planned keeping in view the varied tastes and requirements of listeners. It is also ensured that great objectives of broadcasting are not ignored. In music which is nearly half of all the programmes broadcast from AIR, aim is to broadcast genuine Indian music. To acquaint listeners of both systems of India music—*Hindustani and Karnatic*—special programmes of Karnatic music in the north and Hindustani music in the south are broadcast. Music lessons are broadcast for those who have an elementary knowledge of music. Subaddha sangeet composed of short pieces of attractive classical songs is broadcast to familiarise the average listener with the beauty of classical music. Indian music did not have orchestral or group music. AIR has set up *Vadya Vrinda* or Orchestra in 1952 which presents elaborations of ragas and raginis and has attempted thematic compositions on subjects like Meghdoot, Kalingavijaya, etc, as well.

Radio Sangeet Sammelan is held once a year simultaneously at Delhi, Madras and Bombay before invited audiences in which eminent Musicians take part. It is the most important festival of music in the country. A Symposium is held along with it in which various aspects of Indian Music are discussed. *National Programme of Music* is broadcast from Delhi every Saturday at 9-30 P.M. This programme is relayed by all stations in India.

An *Annual Music competition* is held to discover fresh talent among juvenile artistes. It is open to young artistes between 16 and 21 years. 1224 candidates appeared in it in 1955 and 1115 in 1956.

In light music effort is made to choose songs of poetic quality and their tunes are derived from simple classical music or attractive folk songs. *Light Music Units* have been set up at eight stations. *Folk music* plays an important part in the station's programmes and units with a mobile van and recording apparatus have been set up in certain areas which are rich in folk music to tap the available talent there.

National Programme of Plays is broadcast every month. The best plays written in any of the languages in India are chosen and are then got translated in other languages. These plays are simultaneously broadcast from various stations in the language of their region.

Talks, features and discussions are broadcast from each station and are so planned that listeners can keep in touch with developments in arts, science and literature. *National Programme of Talks* is broadcast every Wednesday at 8-30 P.M., which is relayed by all stations. *Patel lectures* are delivered once a year in which distinguished scholars discuss important aspects of their work and study.

Special programmes for women and children are broadcast by plays, household hints, etc. The object is to give to women listeners information on house keeping, child care, nutrition, mental health and their place in the community and the nation.

In *children's programmes* chorus songs, talks, discussions, short stories, plays, features and quiz programmes are broadcast. They are so designed that children get information and education through interesting programmes.

School broadcasts are given from 20 stations at present, of which 12 originate while others relay. Best talent available in the area is harnessed to communicate knowledge which stimulates minds of school children.

The *Akashbani Sahitya Samaroh* which was organised for the first time in April 1956 has become an annual feature. Eminent men of letters are brought together to discuss and exchange views on matters of importance in contemporary literature.

Tribal programmes were inaugurated from Gauhati in 15 tribal languages on 4th May, 1957.

COMMUNITY BROADCASTS—Rural areas in India are not yet easily accessible and have limited opportunities for education and entertainment. Radio, therefore, assumes an important role in informing and entertaining population living in these areas. State Governments have provided listening facilities in many of the villages in their States. Sets have also been installed by some of the Municipalities and District Boards. All India Radio broadcast special programmes to the rural listeners. The main emphasis of these broadcasts is to provide useful information to the villager through dialogues, discussions and plays and increase his awarenss of every day affair through news, talks and discussions. Folk songs find a prominent place in these broadcasts. Special *Farm Forum Programmes* are also broadcast from some of the stations. All India Radio programme staff makes frequent tours to Farm Forum centres to discuss with Farm Forum groups their special problems.

By March 1957, 26,036 community receivers had been supplied to the various State Governments under the Central Government subsidy scheme since its inciption in 1954-55.

Programmes for industrial workers are also broadcast from Madras, Calcutta, Bombay, Ahmedabad, Lucknow, Allahabad, Trivandrum and Kozhikode. These programmes are designed to provide information and entertainment to the industrial workers and timings are fixed in consultation with the Labour Department of various States.

VIVIDH BHARATI—Vividh Bharati, AIR's new venture in the field of entertainment, was inaugurated on the 3rd October, 1957. This programme has been started to meet the growing demand of the listeners for a programme of popular music and light items. It is being broadcast for five hours on week days and for 7¼ hours on Sundays and principal festival days. The bulk of programmes consists of attractive songs, playlets, operas, poetry recitals and music of all types and for all tastes. The items are based on contributions by all the radio stations in India and, therefore, reflect the culture of every part of the country. The programme is presented and composed in simple Hindi. Every day, however, at 18-30 hours a short special programme in one other Indian language, besides Hindi, is broadcast under 'Bharat Vani' for half an hour.

NEWS—News Service was started in 1937 and is under the charge of a Director of News Services. At present 70 news bulletins are broadcast from Delhi in 28 Indian and foreign languages. Each station relays bulletins broadcast in the language or languages of the area in addition to bulletins in English and Hindi which are relayed by all.

The regional bulletins are relayed by all the stations within the same language area. The total duration of the news transmission of All India Radio emanating from Delhi amounts to 14 hours and 26 minutes.

EXTERNAL SERVICES—The first external service broadcast by All India Radio was in Pushtu in 1939. External Service Division broadcasts in Indian and foreign languages to listeners abroad. The Division broadcasts for over 22 hours per day in 15 languages. The Director of the External Services is the head of this Division. These broadcasts are directed to listeners in several countries in Asia, Africa, Australia and Europe. Listeners are provided with a varied fare of music, news, plays, features and talks. Close contacts are maintained with foreign broadcasting organisations to facilitate exchange of broadcast materials.

PROGRAMME EXCHANGE—There is a Programme Exchange Unit which has two sections. The external section regulates the distribution of recordings to foreign broadcasting organisations. It supplies very regularly such materials to USSR, Nairobi, Australian Broadcasting Commission, Yugoslavia, Indonesia, Japan, Fiji Islands, BBC and UNO. The internal section makes available outstanding programmes of various stations to one another.

TRANSCRIPTION SERVICE.—This service was started in April 1954. It has a complete unit of Record Processing Plant which processes and prints gramophone records of productions of All India Radio Light Music Units. Hundreds of such transcriptions have been processed during the last three years. It has in stock recordings of post-prayer addresses of Mahatma Gandhi for a duration of 51 hours, which are now being processed. Recordings of several other outstanding personalities including masters of music are also in its archives. It has been able to make a collection of recordings of Netaji Subhash Chandra Bose from various sources, within and outside the country.

MONITORING SERVICE—It is located at Simla. It is under the direct control of the Director-General of A. I. R. Monitoring is a process of listening to what broadcasts from other nations say on national and international affairs and taking note of them. At present the Monitoring Service covers about 600 broadcasts per day from 24 radio stations in eleven languages.

TRAINING FACILITIES FOR STAFF—A Staff Training School has been set up at New Delhi, which offers general as well as specialised courses of training to professional broadcasters as well as to the programme staff of All India Radio. Courses for Announcers and News Readers and Seminars for Producers of Spoken-word Programme, Drama Producers and Music Producers are frequently arranged. A training wing for technical personnel is also contemplated.

SONG AND DRAMA DIVISION—The Song and Drama Division was constituted by the Ministry of Information and Broadcasting in 1954 and was transferred to the AIR in 1956. It is responsible for publicising India's Five-Year Plans through the popular media of stage and music performances, puppet shows, etc, before audiences.

LISTENER RESEARCH—Reactions of listeners are vital to any broadcasting organisation in the planning of its programmes By employing scientific methods, listener research unit of AIR endeavours to measure the relative listener preferences to the various programmes broadcast, valuable data is then compiled for guidance of those engaged in planning and production of programmes.

ADVISORY COMMITTEES—There are various Advisory Committees constituted at A I R Stations with the object of assisting the latter in the planning and presentation of different categories of programmes The various committees functioning at the stations are Programme Advisory Committees Rural Advisory Committees, Industrial Programme Advisory Committees, Forces Programme Advisory Committees (the last two at stations which broadcast programmes for Industrial workers and Defence Forces respectively) and Consultive Panels for Educational Programmes Besides, there are a number of *ad hoc* Screening Committee for selection of film music records, selection of news readers and announcers, etc.

PROGRAMME JOURNALS —AIR publishes the following programme journals —

Name of the Journal	*Language*	*Periodicity*
Indian Listener	English	Weekly
Awaz	Urdu	Fortnightly
Sarang	Hindi	"
Betar Jagat	Bengali	"
Vanoli	Tamil	"
Vani	Telugu	"
Nabhowani	Gujarati	"

RESEARCH—To solve technical problems concerning broadcasting in India, a special department has been created which has made important investigations in this field Field strength measurements of various stations are undertaken to study propagation conditions over short and long distances of both medium and short waves Ionospheric date is regularly complied to explore frequencies which would give optimum reception to AIR's home as well as external broadcasts Fading and atmospherics which interfere with broadcast reception are also studied Attention has been devoted to acoustics to help design studies which would meet special requirements of the country and also be satisfactory from the technical point of view. Research is also carried out in the various methods of recording to standardise its characteristics

MAINTENANCE —It is utmost importance that equipment of various kinds, which makes broadcasting possible, is kept in an excellent condition The Station Engineer of each Station looks after the maintenance work of his station and the unified control is exercised by the Maintenance Engineer at Delhi. He is responsible for the overall upkeep of the broadcasting system. His office handles all problems connected with the maintenance of existing transmitters and receiving centres, power supply arrangements, valves, aerials, studios, etc. Systematic effort is being made for carrying out repairs to certain categories of specialised equipment which used to be sent abroad till recently.

A I R FACTS 1957-58

No. of Radio Stations	28	Vividh Bharati programme	[illegible] hrs on week days & 7½ [illegible] on [illegible] & principal festival days
No. of transmitters	52		
No. of Studio Centres	[illegible]	No. of news bulletins & features	[illegible] bulletins
No. of receiving centres	[illegible]	External Service Broadcasts	[illegible] for over [illegible] per day
No. of radio licence (1957)	13,47,216	Regional News	[illegible] from 10 stations in [illegible] languages
No. of community sets supplied by State Governments	30,[illegible]	No. of Schools with radio sets (1957)	10,1[illegible]5
		No. of stations doing school broadcasts	21
Home Service programme round	7	Transcription Service	[illegible] 70 [illegible] and [illegible] discs [illegible]
		[illegible] programmes	[illegible] from [illegible] stations
		No. of newsreel broadcast in English	Twice a week
		No. of newsreel broadcast in Hindi	Once a week

DOMESTIC RECEIVER SETS IN INDIA

1947	[illegible]	[illegible]	6,[illegible]	[illegible]	9,47,353
1948	[illegible]	[illegible]	[illegible]	[illegible]	10,[illegible]
1949	[illegible]	[illegible]	7,[illegible]	[illegible]	13,47,216
1950	5,07,3[illegible]	[illegible]	8,3[illegible],216		

INDIA'S POWER SUPPLY

Power-Generation in India—Generation of power is essential for the industrial development of India, because the economic prosperity of the country mainly depends upon it. In this respect, compared to progressive countries, India lags far behind. The annual per capita generation of electricity in India is only 30 kwh., compared to Norways 6,503 kwh., Canada's 4,890 kwh., the U.K.'s 1,573 kwh., Japan's 715 kwh., and Turkey's 69 kwh.

Power can be derived from oil, coal, water and wind movements. our mineral-oil reserves are almost negligible, and production of our mineral-oil reserves are almost negligible. So production of power through oil is an imposibility. So far as coal is concerned, India has, no doubt, fairly large reserve of coal, but it would be uneconomical if we are to waste coal reserves for the production of power; moreover, well-known coal-bearing areas are concentrated in Bihar, West Bengal, Orissa, Madhya Pradesh and Hyderabad. So in regions far away from the above coal fields, coal costs much due to high cost of transport. This higher cost of transport adversely affects the establishment of large thermal power stations in South India or Punjab. As for water power, it may be said that water is inexhaustible, whereas coal or mineral oil is wasting asset, and the water besides being inexhaustible is the cheapest of all.

The latest estimates put the hydro-electric power potential of India at 35 million kw. but only about 0.9 million kw. has been tapped so far. Generally speaking, the snow-fed rivers rising in the Himalayas along the length of Kashmir to Assam and the heavy rainfall on Western Ghats are the main sources of hydro-powers in India.

The peculiar feature of the Indian rivers is the seasonal variation of their flow from almost nothing during the dry season to several hundreds of thousands of cusec during monsoon. This naturally involves the construction of dams to store sufficient water to be utilised during periods of lean flow. India is essentially an agricultural country and has to depend for irrigation on rivers fed by monsoon rain. Here is a fundamental clash of interests between the needs of irrigation and electricity. So in many cases, projects have to be undertaken as a joint irrigation-cum-electricity measures.

Function and Administration of Irrigation and Power—The Ministry of Irrigation and Power is responsible for the following functions relating to (1) *Power* (2) *Irrigation* (3) *Flood control* (4) *River valley projects.*

Besides laying down the general policy for the development of water and power resources, the Ministry performs the following among other functions—

(1) Watching the progress of the projects in the Irrigation and Power sector and of costs against estimates;

(2) Examination of integrated flood control programmes in

consultation with the States which have a flood problem and assistance to the States in executing flood projection works,

(3) Formulation of integrated flood control programmes in consultation with the States which have a flood problem and assistance to the States in executing flood projection works,

(4) Training of operators of earth moving machinery,

(5) Optimum utilisation of machinery, equipment and skilled personnel and

(6) Formation of measures to ensure efficiency and economy in the execution of River Valley Projects.

Organisation For Power Development—The Electricity (Supply) Act was passed in 1948 to ensure rapid and orderly generation of electricity. It provides for the setting up of a Central Electricity Authority for the whole country and State Electricity Boards for regions. The Central Electricity Authority was constituted in 1950 and the State Electricity Boards have been set up in Delhi, West Bengal, Madhya Pradesh, Bombay, Kerala, Madras, Rajasthan, Mysore and U.P.

Central Electricity Authority—has been set up under Section 3 of the Electricity (Supply) Act of 1948 to perform the following functions:—(1) To develop a sound, adequate and uniform national power policy; (2) to act as arbitrator in matters of dispute arising between the State Governments or the Board; ( ) to carry out investigation and to collect and record data concerning the generation, distribution and utilization of power and development of power resources; (4) to publish information secured under the Act and to provide for publication of reports and investigations.

Central Electricity Board—has been constituted under Section 36 A of the Indian Electricity Act of 1910 and it is responsible for making rules to regulate the generation, transmission and use of energy and for prescribing form of application, licences and allied matters.

State Electricity Boards have been formed in many States. These Boards are required to rationalise the production and supply of electricity in their respective areas, give bulk supplies of power to existing licensed undertakings and retail power wherever necessary and direct licensees to achieve maximum economy and efficiency in the operation of their undertakings.

Central Board of Irrigation and Power—This Board continues to function as a central co-ordinating authority for research work in the field of hydraulic and hydro-electric engineering. It is an autonomous body. There are at present 1 research stations guided by the Board. The Board has also a Research Committee attached to it to co-ordinate research in irrigation, hydro-electric and allied subjects.

Power Organisation—Until recently the generation and distribution of electricity in India was governed by the Indian Electricity Act of 1910. In the Constitution of India 'Power' is in the Concurrent List of subjects. The Ministry of Irrigation and

Power is allotted the following items regarding "power" : (i) Development of power (2) Technical assistance for power development (3) co-ordination of power telecommunication lines (4) disputes among various States relating to distribution and utilization of water for power development (5) electricity legislation (6) research work in power matters (7) generation and supply of electricity in Delhi.

The first four functions are discharged through the agency of the Central Water and Power Commission, the last three through the agencies of the Central Electricity Board, the Central Board of Irrigation and Power and the Delhi State Electricity Board respectively.

Central Water and Power Commission—This is the only attached office of the Ministry of Irrigation and Power. This Commission was created in 1951. The Commission is responsible for initiating and co-ordinating schemes throughout the country for the control, conservation and utilization of water, resources for purposes of flood control, irrigation, navigation and water-power generation, as well as schemes of thermal power development and also schemes of transmission of electrical energy. The Commission is divided into three wings—*water wing*, *power wing* and *Flood wing.* The Commission consists of a Chairman with two members of the Water Wing and two members from the Power Wing. It is assisted by three Chief Engineers who are in charge of the Flood Wing. The Commission renders expert advice only to the State Governments, but to some neighbouring countries as well.

The Power Wing has been divided into following Directorates—

(1) Hydro-electric (2) Thermal (3) System Planning (4) Transmission (5) Rural electrification (6) Load Survey and Load Development (7) Technical Examination, Co-ordination and Research (8) Plant Construction and Procurement (9) Commercial (10) Union Territories.

Electricity Development in India—Broadly speaking, most of the electrical developments in India have so far been limited to satisfying the demand of urban areas. This has led to a lopsided development of our economy. It may be pointed out that six large cities—Bombay, Calcutta, Ahmedabad, Kanpur, Madras and Delhi account for 30 per cent of the country's installed capacity and 30 p.c. of the generated energy.

At the beginning of the first Five-Year Plan in 1951, the number of villages (with less than 10,000 population) supplied with electricity was 3075. At the end of the First Plan in 1956, the number increased to 6,500 and at the end of Second Plan, it is estimated, electricity will be supplied to 16,500 villages.

An allocation of Rs. 20.70 crores was made during the last two years of the First Plan. During the Second Plan period roughly Rs. 75 crores, out of 427 crores allocated for power projects, will be spent on the scheme. Almost all the electrified villages are located in the south in Madras, Mysore, Kerala, Andhra and the Northern States of Uttar Pradesh, Punjab and Bihar.

The distribution of electrification over town and villages of different sizes is as follows :—

	Population range	*[illegible] towns or villages*	*No. of towns & villages with public electricity*	*P.c. of towns or villages with electric supply*
Over	1,00,000	73	73	100.00
Between	50,000 1 00 000	111	*112	100.90
,,	20,000-50,000	401	345	86.03
Below	20,000	856		
	5,000-10,000	5,60,522	7,964	1.42
		5,61,107	8,494	1.51

STATE OF POWER DEVELOPMENT IN INDIA

The state of power development in India at the present time is as follows :—

(1) South India—*largely hydro-electric.*

(2) Bombay area—*largely hydro-electric but with a limited amount of the thermal power.*

(3) Bihar and Bengal coal fields—*mainly thermal.*

(4) Central India-comprising Andhra Pradesh, Orissa and Madhya Pradesh—*mainly thermal.*

(5) Punjab and Uttar Pradesh—*mainly hydro-electric, partly thermal.*

INSTALLED POWER CAPACITY IN STATES
(1957-58 and 1958-59)

	Installed capacity as anticipated in March 1958 (in kw.)	Installed capacity as anticipated in March 1959 (in kw.)
Andhra ..	1,92,876	2,56,576
Assam ..	15,880	16,630
Bombay ..	8,10,146	8,73,146
Bihar ..	2,44,441	3,06,041
Jammu & Kashmir ..	12,875	12,875
Kerala ..	1,13,777	1,21,777
Madhya Pradesh ..	94,406	1,24,406
Madras ..	2,49,666	2,08,464
Mysore ..	1,90,464	2,08,464

---

*Includes Pondicherry Town with a population of 59,835.

Orissa ..	1,56,772	1,56,772
Punjab ..	1,74,463	1,74,463
Rajasthan ..	43,787	51,957
Uttar Pradesh ..	3,67,740	3,67,740
West Bengal ..	5,40,723	5,41,563
Delhi ..	61,191	75,191
Himachal Pradesh ..	512	512
Andaman ..	1,100	1,100
Manipur ..	280	280
Tripura ..	397	397
Pondicherry	5,315	5,345
	32,76,811	36,09,901

Power Development under the Plans

There were 142 power development schemes in the public sector in the First Plan, of these, the major multi purpose river valley projects were Bhakranangal, Hirakud, DVC, Chambal, Rihand, Koyna, Kosi, etc. The principal power schemes completed during the First Plan are—

	Installed Capacity (Kilowatts)		*Installed Capacity* (Kilowatts)
Nangal (Punjab) ..	48,000	Machkund (Andhra-Orissa) ..	34 000
Bokaro (Bihar) ..	1,50,000	Pathri (U P) ..	20,000
Chola (Bombay) ..	54,000	Saroda (U.P.) ..	41,000
Khaperkheda (M P.)	30,000	Sengulam (Kerala) ..	48,000
Moyar (Madras) ..	36,000	Jug (Mysore) ..	72,000
Madras City Plant Extensions ..	30,000		

ELECTRIC ENERGY GENERATED AND SOLD
(Energy in millions of kilowatt hours)

	No. of concerns	*Generated*	*Sold*
1952-53 ..	614	6,301.4	5,134.3
1954-55 ..	686	7,760.9	6,319.2
1955-56 ..	715	8,805.8	7,185.8
1956-57 ..	769	9,877.8	8,103.1

(*Reserve Bank Bulletin*, 1957).

INDIAN IRRIGATION

USEFULNESS OF INDIAN IRRIGATION—The two chief characteristics of rainfall in the country are its unequal distribution in different regions and uneven precipitation in different years The variation in distribution ranges from an average of as high as 460 inches in a region in Assam, to as low as three inches or so in arid Rajasthan , the average for the whole country being a little over 42 inches Similarly, there is a variation in the total precipitation over a region from year to year Because of the uncertainty of rainfall Indian agriculture has been described as a "gamble in the monsoon" The result has been that agricultural development in India has not kept pace with the growth of population To make the country self sufficient in food production, it is, therefore, necessary that the area under cultivation must be increased by the provision of greater irrigation facilities throughout the country

India's water resources have been calculated at about 13,560 lakh acre feet, of which approximately 4 500 lakh acre feet are utilisable The possibility of diverting the normal flow of river into canals has almost been exhausted So for the development of irrigation dams for impounding the surplus river flow during monsoon have to be built at suitable sites In areas where there are no flow irrigation, construction of minor irrigation works, such as tanks and wells and water lifting devices, have to be undertaken

The water supplies for irrigation are obtained from three sources -

(1) directly from the waters flowing in natural streams ;
(2) from the storage of flood waters of these streams or directly from storage of rain water in small tanks ; and
(3) from the underground subsoil reservoir.

GOVERNMENT DEPARTMENTS—The Ministry of Irrigation and Power is responsible for functions relating to irrigation. But irrigation is a State subject so the Ministry is concerned only with—(1) technical assistance for irrigation development, (2) disputes among various States relating to distribution and utilisation of water for irrigation (3) research work in irrigation matters. These functions are carried by the *Central Water and Power Commission* and the *Central Board of Irrigation and Power.*

The Central Water and Power Commission is mainly responsible for initiating and co ordinating schemes for multi purpose river development and preparing integrated plans for thermal power development, transmission and utilisation of electrical energy and tackling the flood problem.

The Commission is divided into three wings, one dealing with irrigation and navigation, the other with power and the third with flood control problems. It consists of a Chairman and two Members for the *Water Wing* and two Members for the *Power*

Wing. It is assisted by two Chief Engineers who are in charge of the Flood Wing.

An important activity of the Commission is irrigation research. The Central Water, Power and Research Station at Khadagvasla, near Poona, is the oldest research institution in India, which is endeavouring to determine the best form of structure for the control and development of rivers in the country. The Station has now eight sections, *viz.*, (1) Canal hydraulics ; (2) Navigation ; (3) Concrete and materials of construction ; (4) Soil and soil mechanics ; (5) Mathematics ; (6) Statistics ; (7) Physics ; and (8) Chemistry.

The *Central Board of Irrigation and Power* co-ordinates research work in irrigation and individuals, disseminates technical information on the subject and acts as a liasion body for the International Association for Hydraulic Mechanics and Foundation Engineering. The Board also co-ordinates the research work undertaken at the research stations established by the State Governments, *viz.*, Bombay, Punjab, Uttar Pradesh, Bengal and Andhra Pradesh.

FLOOD CONTROL—On the advice of the Central Government, most of the States have set up Flood Control Boards in their respective States for tackling flood control problems in their areas. These Boards are assisted by the Technical Committees. A Central Flood Control Board has also been set up to consider schemes prepared by the State Flood Control Boards and also to formulate national flood control programme. The Central Board includes ministers from States. A Flood Wing has been added to the Central Water and Power Commission to give technical assistance to the States on flood control problems. Flood Control Boards have been established in Andhra Pradesh, Assam, Bihar, Bombay, Jammu and Kashmir, Kerala, Madhya Pradesh, Mysore, Orissa, Punjab, Uttar Pradesh and Uttar Pradesh. *River Commission* (Floods) has also been established for the Brahmaputra, Ganga, North-West rivers and Central India rivers. *A High Level Committee* has been set up in April 1957 for assessing the flood problems in the various States and examining the available relevant data.

RIVER VALLEY PROJECTS—India is well-placed in respect of overall water resources and power potential. It is increasingly being realised that while a project conceived for a single purpose, like irrigation or flood control, might not be an economic proposition, it might become a financially feasible and productive scheme, if it included other purposes, like power generation, navigation, etc. So the multipurpose schemes have come in, because of the manifold benefits they yield. Apart from providing irrigation facilities for growing additional food and commercial crops, two other main benefits are the control of floods which cause enormous destruction of crop, property, cattle and human life every year and the generation of large blocks of hydro-electric power. Among other benefits which accrue from the projects are the development of internal navigation, which relieves the pressure on the railways, facilitates conservation, afforestation, pisciculture and the provision of drinking water. At present, about 153 projects have been undertaken in different parts of the country ; of these six are multi-purpose, 104 irrigation and 43 power projects. Some of these 153 projects may be termed 'major', of these major projects, six are multi-purpose, three are power schemes and three are irrigation schemes.

MAIN TYPES OF IRRIGATION—(1) *Canal Irrigation*—This is the most important type of irrigation. Canals draw their waters from rivers or from artificial storage. They are mostly seen in Northern India. The river canals are of three classes—Inundation canals, Perennial canals and Storage canals. By inundation canals water supply is made possible by leading water from rivers and streams. They are formed by making smaller cuts through the river bank, into which the water flows when the level of the river rises during floods. These are generally found in the Indus basin and its tributaries. The perennial canals are built by erecting some form of barrage across a river which flows throughout the year, and directing its water through a canal to the country to be irrigated. These canals are found in Uttar Pradesh and Punjab. Storage canals are built by constructing a dam across a valley to store the rain water during monsoons. The water so held is later distributed to lands by means of canals drawn from the storage. These works are found in the Deccan, M.P. and Bundelkhand.

(2) The rest of the irrigation is done through *tanks*, *surface percolation wells*, *tube-wells*, etc. The term minor applies to this type of irrigation

(*a*) Surface Percolation wells exist all over the country.

(*b*) Tanks and Reservoirs—The water collects either in natural depression on the beds of streams or dammed up and shallow basins created for storing water.

(*c*) Flood irrigation and inundation irrigation are the other sources of minor irrigation in India. The monsoon flood water of rivers is diverted to lands which are above the level of the ordinary supply in a river. The flood water soaks the lands and the moisture retained in the soil allows the cultivation of a winter season crop, which otherwise would not be possible.

(*d*) Tube-wells—This means lifting of water from underground by means of mechanical pumps. This process helps to utilise the sub-soil water resources of the country, particularly in the alluvial plains of the Indo-Gangetic basin.

The irrigation is again divided into three classes by the Government :—

(1) *Productive*—The capital for the construction and extension of this class is provided out of borrowed money or by appropriation from Famine Insurance Grant, and which is expected to yield within ten years of their completion sufficient revenue to pay their working expenses as well as the interest on the capital expended on their construction.

(2) *Unproductive*—Unproductive works are those which yield a net revenue which is less than the percentage fixed for productive works. These are constructed primarily as protection against famine, and the cost of construction is provided out of current revenues or by appropriation from Famine Insurance Grant.

(3) *Minor*—These are small works for which detailed capital or revenue accounts are not maintained; such works may be productive or unproductive.

Dams and Barrages—It is necessary to understand the difference between a dam and a barrage in connection with river valley projects. Any obstruction built to stem the flow of water in a stream is a dam and from this point of view, a barrage also is a dam. But a dam has come to be synonymous with a comparatively high structure built to form a reservoir and a barrage with a structure which controls and regulates the flow of water.

PRINCIPAL IRRIGATION WORKS OF INDIA

Punjab

1. *Western Yamuna Canal* takes its water from the Yamuna, near where the river leaves the Himalayas and irrigates the districts of Rohtak, Hissar, Ambala, Karnal, Patiala, Jhind and Delhi.
2. *Sirhind Canal* takes water from the Sutlej river and irrigates Ludhiana, Ferozpur, Hissar, Nabha and Patiala districts.
3. *Upper Bari-Doab Canal* takes water from the Ravi River at Madhopur and irrigates Gurdaspur & Amritsar District. Its main line and branches are 280 miles long in India.
4. *Eastern Canal* constructed in 1953 irrigates Ferozpur District.
5. *Nangal Barrage.*

Uttar Pradesh

(1) Ganga Canal, (2) Lower Ganga Canal, (3) Agra Canal, (4) Sarda Canal, (5) Extension of Sarda Canal, (6) Sarda Canal Reservoir (Stage I) (7) Mata Tila (1st stage).

Andhra Pradesh

(1) Godavari Delta System (2) Krishna Delta System (3) Romperu Drainage System (4) Rallapad (5) Nizamsagar (6) Godavari (Stage I).

Kerala

(1) Kuttanad (2) Peechi (3) Neyyar (4) Malampuzha (5) Walayar Reservoir.

Jammu & Kashmir

Sind Valley

Madras

(1) Perinchani (2) Periyar System (3) Lower Bhavani (4) Kaveri Mettur (5) Araniar Reservoir.

Madhya Pradesh

(1) Tandula Canals (2) Mahanadi Canals.

Bihar

(1) Sone Canals (2) Tribeni Canals.

Bombay

(1) Nira Left Bank Canal (2) Nira Right Bank Canal (3) Pravara River Works (4) Gangapur Reservoir (5) Raugola (6) Brahmani (7) Moj (8) Aji (9) Machhu.

ORISSA

(1) Orissa Canals.

Rajasthan

(1) Jawai Project (2) Parvati Project (3) Meja Project.

Mysore

(1) Krishnarajasagar Canals (2) Tunga Anicut (3) Nugu (4) Ghataprabha Left Bank Canal

West Bengal

(1) Damodar Canals (2) Mayurakshi Canals.

RIVER VALLEY PROJECTS

Bhakra-Nangal Project—The project comprises two big dams, a vast network of canals, four power houses and a large number of transmission lines with scores of sub stations spread over the Punjab, Pepsu, Rajasthan, Himachal Pradesh and Delhi. It is located in the Hoshiarpur district in the Punjab. It will have a dam about one mile from Nangal Township (Nangal dam) and a main dam, 8 miles upstream across Sutlej river

The main parts of the Bhakra Nangal Project are—(1) (*a*) Bhakra dam, 740 ft high (*b*) Two power houses at the foot of the dam (*c*) Two 50 ft diameter concrete lined diversion tunnels, each half a mile long (2) Nangal Dam, 90 ft. high (3) Nangal Hydel-Channel, 40 miles long (4) Two power houses on the Hydel Channel at Ganguwal and Kotla (5) Bhakra Irrigation Canals and Distribution System (6) Remodelling of Rupar Headworks and the Sirhind Canal (7) Bist Doab Canal and (8) Transmission System.

All works except the Bhakra Dam and its two power houses and the transmission system have been completed. The revised estimate of the Bhakra-Nangal Project is Rs 170 02 crores.

Damodar Valley Corporation—The aim of this multi-purpose project is to tame the turbulent Damodar and its tributaries which overflow their banks and bring destruction, misery to large parts of Bihar and Bengal. It is a joint venture undertaken by the West Bengal, Bihar and Central Governments It comprises four dams: *Tilaiya Dam, Konar Dam, Maithon Dam* and *Panchet Hill Dam* with *Durgapur Barrage* and *Bokaro Power House.*

Tilaiya Dam is located about 12 miles from Kodarma railway station on the Eastern Railway in Bihar across the Barakar river. It is a straight gravity concrete dam with a height of 99 ft above river bed and with a length of 1,200 feet. It has a storage capacity of 320,000 acre feet. Power benefits are two generating units of

2,000 kw., each with provision for third unit (23 mil. kw. output). It has cost Rs. 3.66 crores. Work was started in Jan. 1950 and completed in December 1952.

Konar Dam is located in Hazaribagh district in Bihar State, across the Konar river. The Dam is of straight gravity type, concrete with earthen flanks. Its length is 910 ft. and height is 160 ft. above the river bed. The storage capacity of the reservoir is 273,000 acre ft. (gross), and the waterspread is 10.3 sq. miles. It is expected that generating plant of 40,000. will be installed. The cost of the dam is estimated at Rs. 9.94 crores. It was started in 1950 and completed in 1954.

Maithon Dam is situated 16 miles from Asansol railway station on the Eastern Railway in Bihar, across the Barakar river. It is a rolled earth dam with concrete spillway. The height of the Dam is 182 ft. above foundation of the concrete dam and 164 ft. above foundation of the earth dam. Its length is 3,234 ft. The storago capacity is 1.2 mil. acre ft. with the waterspread of 44.4 sq. miles. It is designed primarily for flood control. The installed capacity of power is 60,000 kw. It will be operated in co-ordination with other hydro and thermal stations of the system. Total energy output is estimated at 170,000,000 kwh. per annum. The cost of the Dam is estimated at Rs. 16.74 crores. It was started in 1951 and completed in 1957.

Panchet Hill Dam—is in Dhanbad district of Bihar, across the Damodar river. The Dam is of straight gravity type, earth-*cum*-concrete. Its height is 157 feet above foundation (concrete dam) and 135 ft. above foundation (earth dam) with a length of 8,362 feet. Storage capacity of the reservoir is 1,365,000 acre feet with the waterspread of 64 sq. miles. It is designed primarily for flood control with power generation of 40,000 kw. The cost for building the dam is Rs. 18.25 crores. The work was started in 1952 and is expected to be completed by the end of 1958.

Durgapur Barrage—is situated about a mile from Durgapur railway station and 25 miles from Asansol in West Bengal, across Damodar river. The barrage is of concrete type with a height of 38 ft. and a length of 2,271 ft. It has 85-mile long canal on the left, 55-mile long canal on the right, 1,410 miles of other canals and distributaries. The irrigation benefits are 10,26,000 acres, of which 1,85,000 acres are fed by the existing Damodar Canal system. So far as the navigation is concerned, the canal on the left bank is navigable, connecting coal mining areas around Raniganj with Hooghly, about 35 miles above Calcutta. It has 360 miles of channels. It has cost Rs. 22.68 crores.

Bokaro Power House is about 12 miles downstream of the Konar dam in Bihar. It has generating units of 50,000 kw. each at present. Fourth unit of 75,000 kw. is to be installed shortly. The Power House will give additional power for iron and steel works at Jamshedpur and Burnpur, copper mines at Ghatsila, coal mines of W. Bengal and Bihar, the new cement works and engineering industries in and around Asansol and for Sindri and Calcutta city.

Machkund Project—The Machkund scheme is a joint venture be-

tween the States of Orissa and Andhra Pradesh. The two States share the capital outlay and power benefit in the ratio of 30 : 70 respectively. The agency for the execution of the scheme is the Government of Andhra Pradesh. The location of the scheme is 120 miles north-west of Visakhapatnam across the Machkund river of the Godavari system in Andhra Pradesh. It comprises a dam at Jalaput, a diversion dam 14 miles downstream across the river and a power house. The Dam is masonry and 176 feet high above foundation (main dam) and its length is 1,345 feet (main dam) and 1,037 (diversion dam). The storage capacity of the reservoir is 27,200 mil. cu. ft. The scheme will generate three units of 17,000 kw. each under Stage I and three units of 23,000 kw. each in Stage II. The entire cost will be Rs. 26.32 crores. It was started in 1946. Third and final unit under stage I was commissioned in June 1956. Works under Stage II are progressing.

Chambal Project—Chambal Project, a joint venture of Rajasthan and Madhya Bharat, involves the construction of three dams across the Chambal with power house at each, a barrage near Kota, with canals on both sides for irrigation. The project will ultimately produce 2.10 lakh kw. of power at 60 p.c. load factor and irrigate 14 lakh acres. The execution of the project has been planned in three stages. The first stage estimated to cost Rs. 48.08 crores has been sanctioned. Stage I of the project consists of—

(1) *Gandhi Sagar Dam* at the border of Madhya Pradesh and Rajasthan States. The dam will be 204 feet high and 1,685 feet long at the top and will create a storage of 6.85 million acre feet (2) A Power House at the Gandhi Sagar Dam to accommodate five units of 23,000 kw. each—three units being installed in the first stage. (3) 911 miles Transmission Lines in both the States (4) Kotah Barrage (5) Canals on both sides of the river—162 miles in Rajasthan and 398 miles in Madhya Pradesh. The first stage is scheduled to be completed by 1959.

Tungabhadra Project—It is one of the large multi-purpose schemes in South India, and was taken up for execution almost immediately after World War II. It is a joint enterprise of the States of Andhra Pradesh and Mysore. It is located in the Bellary district in Mysore State, 3 miles from Hospet, across the Tungabhadra river. The type of the dam is straight gravity and masonry. The project consists of a masonry dam across the Tongabhadra, a 127—mile canal with a power house on the left side and a 225—mile canal called the Low Level Canal with two power houses on the right side. An area of 6,71,600 acres in Mysore and 4,56,900 acres in Andhra will receive irrigation benefits. Under the final scheme 1,08,000 kw. of power will be generated.

Hirakud Dam Project (Stage I)—It is located in Sambalpur district in Orissa State, 6 miles from Sambalpur Railway Station, across the Mahanadi river. The type of the dam is earth, masonry and concrete. The Hirakud Project consists of a three-mile long dam with a maximum height of 200 feet and a reservoir with a gross storage capacity of 6.6 million acre feet. Irrigation will be extended to 6.72 lakh acres in Sambalpur and Bolangir districts of Orissa and to 18.7 lakh acres in Cuttack and Puri districts. The power house located at the foot of the dam will have an installed capacity of 1.23,000 kw. The project is estimated to cost Rs. 70.78 crores. The foundation stone was laid by the Prime Minister on April 12, 1948. He also inaugurated the project on completion of the main dam on January 13, 1957. Under the second phase, now in hand, generating sets capable of producing 72,000 kw. at Chiplima and an additional unit of 37,500 kw. at the main dam power house will be installed by 1961.

Bhadra—It is located in the Chickmagalur district in Mysore State, near Lakkavalli village, across the Bhadra river. The type of the dam is straight gravity. The height of the masonry dam is 252 ft. above foundation and earth dam is 109 ft. above the river bed. The length of the masonry dam is 1,400 ft. and that of earth dam is 275 feet. The storage capacity of the Reservoir is 36,035 mil. cu. feet. and the waterspread is 80 sq. miles. There are two canals of 212 miles long The scheme will irrigate 2,34,200 acres and the installed capacity of the power is 33,200 kw The entire cost of the scheme is 24.42 crores. It was started in 1947-48 and is expected to be completed by 1961.

Malampuzha Project—This project consists of a dam across Malampuzha river at the foot of the Western Ghats, three miles east of Olavakkot Railway Station and a main left bank canal about 20 miles long with branch channels to irrigate the Malabar district of Kerala The dam has been completed and irrigation was extended to 35,000 acres in Sept. 1955.

Manimuthar—This project, which will irrigate large acres in the Tirunelveli district of Madras, consists of a dam (largely earth) across the river Manimuthar and a canal taking off from the right side of the reservoir. The entire project is expected to cost Rs. 3.05 crores.

Periyar—The Periyar river which rises on the border of Travancore-Cochin and Madras, has a total fall of about 1,200 ft. in its descent to the plains. This fall is to be utilised to generate 105,000 kw. of power for the Madras grid system. The scheme will ultimately cost about Rs. 10.48 crores.

Lower Bhavani Project—This is one of the most notable projects of Madras Bhavani is a tributary of the Cauveri and has a major portion of its course in the Coimbatore district. It is located in Coimbatore district in Madras, across the Bhavani river. The height of the Dam is 204 ft. masonry and 120 ft. earth and its length is 28,862 ft. The storage capacity of the reservoir is 64 mil. acre feet. There is a 124-mile canal on the right side. The scheme will irrigate 207,000 acres and it has cost Rs. 9.51 crores. It was started in 1949 and completed in 1956.

Koyna Project (stage 1)—is situated at Deshmukwadi in the North Satara district in Bombay, across the Koyna river, a tributary of the Krishna. This project comprises the construction of a concrete-*cum*-masonry dam across the Koyna river, an underground power house capable of generating 2,40,000 kw. of power at 60 p.c. load factor and a double circuit 220 kw. transmission line to

Trombay to be tied into Tatas power system at that place. The estimated cost of the work is Rs. 42.76 crores. It was started in 1954 and is expected to be completed by 1961.

It has a 2½—mile tunnel bored through a mountain which takes the water and drops it down to what is going to be the longest underground power station in the world. Besides this, Koyna is not so multi-purpose as other dams. Although it will irrigate lands, its main purpose is to produce electricity for hundreds of miles that have gone up round about the city of Bombay in the last ten years.

Kakrapar Project—This project is located at Kakrapar, 50 miles upstream of Surat in Bombay State, across the Tapti river. The type of the weir is stone masonry with 60 feet above foundation with a length of 2,039 feet. Its Right Bank Canal system has a total length of 340 miles and the Left Bank Canal system covers 520 miles. The project will irrigate 6.52 lakh acres. It has cost Rs. 11.65 crores. The scheme was started in 1949. Weir was completed in 1955. Canal system is expected to be completed by 1959.

Mayurakshi Project (Canada Dam)—This scheme is located at Messanjore, 20 miles north-west of Suri, the headquarters of Birbhum district in West Bengal, across Mayurakshi river. The description of the Dam is as follows: *Type*—Masonry gravity, *Height*—155 ft. (Maximum), *Length*—2,170 ft. and *Spillway*—740 ft. long. There is a barrage 20 miles down the dam known as the Tilpara barrage, 1,013 ft. long. There are two canals, 75 miles long each, taking off from either side of the barrage and a canal from the dam. The total length of the canal system is about 850 miles. This will irrigate 7.2 lakh acres annually in West Bengal and about 35,000 acres in Bihar. The installed capacity of the power is 4,000 kw. The scheme has cost Rs. 16.1 crores. It was started in 1946 and completed in 1956.

Rihand Dam Project—The Rihand Project comprises a concrete gravity dam across the Rihand river, about 28 miles south of its confluence with the Son river near Pipri village in Mirzapur district. The dam will be about 3,000 ft. long and about 270 ft. above the river bed. The reservoir will have a gross storage of 8 6 million acre feet. The power station at the base of the dam will house five generating sets of 50,000 kw. each. Power will be utilised for pumping water from 4,000 tube-wells for irrigation of about 16 lakh acres in Uttar Pradesh and 5 lakh acres in Bihar. The total estimated cost is about Rs. 46 crores. The dam is expected to be completed by 1961.

Kosi Project—envisages a barrage across the Kosi river, three miles above Hanumannagar in Bihar, and construction of flood banks on either side for confining the river in the middle reach. The main features of the Kosi scheme are—*Unit I—Hanumannagar Barrage and Head Works*—A barrage will be constructed across the Kosi river about 3 miles upstream of Hanumannagar in Nepal. It will have earth flanks and the following masonry structures (*i*) a main spillway and (*ii*) a head regulator for a future canal on the western side and a head regulator for the Eastern Kosi Canal. *Unit II*—Flood embankments (about 150 miles in length) and protective measures. *Unit III—Eastern Kosi Canal*—This canal which will take off from Hanumannagar Barrage will have a gross commanded area of 18.23 lakh acres and an annual irrigation of 13.97 lakh acres. The main canal will have four branches, namely, Supaul branch, Partabganj branch, Purnea branch and Arraria branch.

Nagarjunasagar, I—is located in Nalgonda district in Andhra Pradesh, 1½ miles below the Nandikonda village, across the Krishna. It is a scheme of the Andhra Pradesh Government and comprises the construction of a masonry dam on the Krishna river near Nandikonda village and two canals, one on each side of the river. The Right Bank Canal, 135 miles long will irrigate 9.7 lakh acres. The Left Bank Canal, 108 miles long will irrigate an area of 7.9 lakh acres. An additional area of 3 lakh acres in the Krishna delta will also be brought under irrigation. The total area to be irrigated under the project is therefore expected to be 20.6 lakh across, yielding about 8 lakh tons of food grains. The dam will be built of stone masonry and provided with eight pen-stocks, each 14 feet in diameter, for eventual generation of power in the final stage of the project. The height of the Dam would be 290 ft. above foundation level in the spillway section and 330 ft. in the non-spillway section. The project is expected to be completed by the year 1963-64.

Kangsabati—is located in Bankura district in West Bengal. It is one mile from Ambikanagar across the Kangsabati and Kumari rivers. It has earth dam with saddle spillway. The height of the dam is 126 feet above foundation with a length of about 6 miles (including dykes and spillways). The storage capacity of the reservoir is 920,000 acre feet with a waterspread of 45 sq. miles. Flood absorption is 2 lakh acre feet. There will be 232.5-mile canal system with two main canals. The benefits from the irrigation will be 8 lakh acres (Kharif) and 1.5 lakh acres (Rabi). The estimated cost of construction is Rs. 25.89 crores. The work has been started in 1956-57.

Kundah, Stages I & II—is located in the Nilgiri district of Madras State in the Kundah basin (across the Avalanche, Emerald streams of Kundah and Regumbuhalla stream). The storage capacity of the Dam (Stage I) is 5,500 mil. cu. ft. The benefits of the Kundah scheme are : Stage I—two units of 20,000 kw. each in the first power house and three units of 35,000 kw. each in the second. Stage II—fourth units of 35,000 kw. at the second power house. The cost of the scheme is expected to be Rs. 33.44 crores. It was started in 1956.

Sharavati Power Project, Stage I—is located near Linganamakki village, 8 miles below the Hirebhasgar dam in Mysore, across the Sharavati river. The type of the dam is gravity with a height of 152 ft. maximum and length of 1,270 ft. The reservoir capacity is 44,152 mil. cu. ft. The benefits of the project are : 2 units of 89,000 kw. capacity. The proposed cost is Rs. 22.99 crores. The installation of 2 units in the first stage will be completed during Third Plan period. *Yamuna* is located between the Kishan dam on the Tons river and Phonta on the Yamuna river in U.P. The benefits of the scheme are 171,000 kw. of power to be generated in I & II stage. 51,000 kw. will be available by 1960-61. The cost is expected to be Rs. 19.59 crores for I & II stages.

Kadana (Mahi-Stage II)—is located about 2 miles upstream of Kadana village in Santrampur taluka of Panch Mahal district in Bombay State, across the Mahi. The dam is of masonry type with a height of 255 feet approximate and with a length of 3,750 ft. The storage capacity of the reservoir is 80,000 mil. cu. ft. The benefits of irrigation are 3,30,000 acres annually for stage II and 7,85,000 acres (final including stage I). The cost is expected to be Rs. 14.04 crores.

Kobra Thermal Power Station—is situated at Kobra, near Champ, in Bilaspur district of Madhya Pradesh. The benefits that will be derived from this project are: three generating units of 30,000 kw. each. Bhilai Steel Works will receive 50,000 kw. from this station. The cost is estimated at Rs. 12.34 crores. The scheme is expected to be completed during the Second Plan.

Tawa—is located near Haryagarh railway station in Madhya Pradesh, across Tawa, a tributary of the Narmada. The spillway dam is of straight gravity type with a height of 198 ft. above foundation with a length of 720 ft. The power dam is 195 ft. high above foundation with a length of 350 ft. The storage capacity of the reservoir is 2,955 mile acre ft. with a waterspread of 106.6 sq. miles. There are two canals of 90 and 620 miles long. Irrigation benefits are 5,85,972 acres. The estimated cost is Rs. 18.3431 crores.

POWER & IRRIGATION PROJECTS IN THE FIRST FIVE-YEAR PLAN

(Costs & Benefits)

	Total Expenditure 1951-56 (*lakhs of Rs.*)	*Irrigation benefits* (thousand acres)		*Power benefits* (thousand kw.)	
		by 1955-56	on completion	by 1951-56	on completion
Multi-purpose Projects					
Bhakra-Nangal ..	77,50	1,361	3,604	96	114(a)
Harika ..	10,62	—	—	—	—
D. V. C. ..	41,70	595	1,141	164	254
Hirakud ..	44,00	261	1,785	—	123
Addl fund for above projects	50,00	—	—	—	—
New Schemes (b) ..	30,00	—	—	-	429
Total ..	253,82	2,217	6,500	250	940
Part A States					
Andhra ..	—	—	—	51	121
Assam .	2,83	218	218	—	7
Bihar ..	16,82	675	777	8	9
Bombay .	33,12	474	893	83	84
M. P. ..	9,08	114	184	77	77
Madras ..	84,32	435	608	110	245
Orissa ..	6 91	480	480	7	8
Punjab ..	3,64	666	774	—	—
U. P. ..	33,21	1,361	3,181	111	156
W. Bengal ..	16,13	917	917	4	4
Total ..	206,67	5,340	8,032	451	911

(a) Nangal only.

(b) The new schemes include Kosi (Stage 1), Koyna (Stage 1), Krishna Chambal (Stage 1) and Rihand.

Part B States					
Hyderabad	28,00	806	781	53	71
Jammu & Kashmir	8,60	76	169	6	71
Madhya Bharat	5 56	88	152	17	18
Mysore	19,84	30	250	72	72
Pepsu	65	—	129	—	—
Rajasthan	5,45	243	523	13	33
Saurashtra	6 88	108	120	9	16
Travancore-Cochin	85 11	863	2 242	251	351
Total	85,11	863	2,242	251	351
Part C States					
Ajmer	11		—	—	—
Bhopal	28	—	—	3	5
Coorg	25		—	—	—
H Pradesh	93	75	100	—	1
Kutch	1 14	38	38	1	8
Manipur	12		—	—	—
Tripura	7		—	—	—
Vindhya Pradesh	51			2	4
Total	3 41	113	138	6	18
Grand Total	[illegible] 41	8 553	16,342	958	2,030

PRINCIPAL IRRIGATION WORKS IN THE SECOND FIVE-YEAR PLAN

Continuing Scheme	Benefits in 100 acres on completion	New Schemes	Benefits in 1000 acres on completion.
Bhakra Nangal (Punjab & Rajastan)	3 604	Ukai (Bombay)	614
		Tawa (M P)	590
Damodar Valley (W Bengal & Bihar)	1 111	Baima (Bombay)	157
		Vamsadhara (Andhra)	306
Hirakud• (Stage I) including Mahanadi Delta (Orissa	1 785	Narmada (Bombay)	1,157
		Banas (Bombay)	120
Chambal (Stage I Rajastan & M P)	1 100	Mula (Bombay)	204
		Girna (Bombay)	181
Tungabhadra (Andhra & Mysore)	700	Khadakvasla (Bombay)	204
Mayurakshi (W Bengal)	600	New Kattalai (Madras)	11
Bhadra (Mysore)	224	Salandi (Orissa)	359
Kosi (Bihar)	1 600	Gurgaon Canal (Punjab)	106
Nagarjunasagar (Stage I Andhra)	1,310	Kangsabati (W Bengal)	950
Tungabhadra High Level Canal (Andhra & Mysore)	390	Chandrakeshar (M P)	25
		Kabini (Mysore)	80
Kakrapar Canal (Lower Tapti, Bombay)	562	Pani (Rajasthan)	250
		Bhadar (Bombay)	90
		Pothithinkettu (Kerala)	63
		Tilder Canal (J & K)	15
		Hanna or Kelu (M P)	250
		Laxmanathirtha (Mysore)	8
		Kesiyari (M P)	40
		Vidur (Pondicherry & Madras)	4

INSURANCE IN INDIA

Nationalization of Insurance—It is unique in the annals of life insurance all the world over, that the Government of India have taken over from 1956 the life insurance business in its own hands. It is the largest government-owned organisation in the world operating life insurance.

As a first step in this direction, the Life Insurance (Emergency Provisions) Ordinance was promulgated by the President on January, 19, 1956, vesting in the Government of India, with immediate effect, the management of the life insurance business in India of both Indian and foreign insurances and the foreign life insurance business of Indian insurers. The Ordinance affected the entire business of Provident Societies as well as capital redemption and "annuity certain business."

The Life Insurance Corporation Bill was passed on May 23, 1956 and the Corporation came into being in Bombay on September 1, 1956. This Corporation has the exclusive right to carry on life insurance business, including capital redemption business, annuity certain business and reinsurance business, in India and outside. No insurance company is authorised to carry on life insurance business in India after the establishment of the Corporation. All contracts, agreements, etc., which were in effect before the establishment of Life Insurance Corporation and which have been transferred to it, now remain in full force. The Act does not apply to the Post Office Life Insurance Fund and to existing compulsory life insurance schemes for Government employees. The Life Insurance Corporation has an initial capital of Rs. 5 crores, which is provided by Government. It is managed by a Board consisting of not more than 15 members, including Chairman, appointed by the Central Government which ensure that members have no such financial or other interests as is likely to prejudicially affect the exercise of their functions. Members are to take part in the deliberations or discussions of the Corporation in respect of contracts in which they are directly or indirectly interested. The general superintendence and direction of the Corporation may be entrusted to an executive committee consisting of not more than 5 of its members. The corporation acts, as far as possible, on business principles and is guided by direction issued by Government on matters of policy involving public interest. The Act sets out the principles governing compensation payable by the Corporation to the life insurance companies and provides for the constitution of a tribunal for settlement of disputes arising in the process of nationalisation, including disputes concerning compensation. The Act has laid down that there shall be five zones with headquarters at Bombay, Calcutta, Madras, Delhi and Kanpur. Under each zone, there shall be Divisional Offices.

Under the provisions of the Act, 33 Divisional Offices have been established all over the country. Under the Divisional Offices, there would be a network of branches—some 180 in number.

The other terms of nationalisation are—certain private firms are allowed to carry on business outside India, provided they can satisfy the Government about their capacity to handle it. Foreign companies are permitted to take their sterling policies out of the country. The nationalised industry is to be run on strictly commercial lines and not subject to the tiresome impediments of official audit or day-to-day Parliamentary control. General insurance is left in private hands for the time being.

New Plans of Insurance—New schemes of insurance have already been introduced by the Corporation—(1) *Janata Scheme* is working as a pilot project in the industrial and rural areas of Greater Bombay, Ahmedabad, Sholapur, Delhi, Rohtak, Kanpur, Calcutta, Siliguri, Madras, Madurai, Coimbatore and Hyderabad (2) *Group Insurance and Superannuation Schemes*—provide low cost life insurance to homogeneous groups of white collar workers and factory employees under one Master Policy (3) *Salary Saving Scheme*—This is a scheme for the employees to enable them to pay premiums by automatic deduction from their salaries.

Functions and Organisation—Under the Ministry of Finance, there is the Department of Economic Affairs and one of the Divisions and this Department is *Insurance Division.* This Insurance Division deals with the administration of Insurance Act, 1938 and the Life Insurance Corporation Act of 1956.

Investment Policy of the Corporation—The investment policy of the Corporation was announced on the 25th August, 1958 by the Government of India. The investments of the Corporation would be divided into three broad categories—

(1) the Government and approved securities which generally mean guilt-edged securities.

(2) investments approved under the Section 27 (A) of the Insurance Act, and

(3) other investments.

The limitations are that at least 50 per cent of the total funds should be held in Government and approved securities and not more than 15 per cent should be held in the form of other investments. The balance of 35 per cent would be held in what is known as approved investments.

Associate Bodies—*Insurance. Association of India*—All Iusurance Companies of India working under the Insurance Act of 1938 constituted themselves into Insurance Association of India, 1950. The Association has two councils, namely, Life Insurance Council and the General Insurance Council with membership confined to insurers carrying on life and general insurance business respectively. With the nationalisation of life insurance business in India, the Life Insurance Council has become *functus officio.* The General Insurance Council has evolved a code of conduct for observance by general insurers with the object of eliminating various alleged malpractices of relating and payment of excessive commission.

Reinsurance Corporation of India—In consultation with the

Government of India, insurers carrying on general insurance business in India have set up a Reinsurance Corporation of India to check drain on account of reinsurances from India. All member insurancers will compulsorily cede to the Corporation an agreed amount of their annual premimum income. Capital of the Corporation has been subscribed both by the Indian and European insurers.

Provident Societies—These Societies formed under the Provident Societies Act serve people of moderate means. The maximum amount that could be insured with a provident society is Rs. 1000. In 1956 there were 71 registered provident societies

Postal Insurance—was instituted in 1883 to serve the needs of postal people only. Subsequently the facility was extended to most civilian employees In Jan 1948, members of the Defence Services were also admitted to the Fund

Other classes of Insurance—In addition the Insurance Corporation of India, there are other classes of insurance In the restricted sphere, insurance business is carried on by the Posts and Telegraphs Department, by some States, such as Andhra Pradesh, Kerala, Mysore, Rajasthan and Uttar Pradesh where life insurance business is restricted to their employees Marine and miscellaneous classes of business are transacted by Insurance Companies.

LIFE INSURANCE STATISTICS

(In Crores of Rupees)

	New business			*Total business in Force*		
	Indian	Non-Indian	*Total*	Indian	Non-Indian	*Total*
	insurers	insurers	*Total*	insurers	insurers	*Total*
1950	125 8	13 7	139 5	671	109	780
1951	131 4	16 5	147 9	755	118	873
1952	130 3	16 4	146 7	796	126	922
1953	138 2	17 0	155 2	833	133	966
1954	220 1	16 2	236 3	949	137	1,085
1955	220 9	17 4	238 3	984	139	1,123

EMPLOYERS' STATE INSURANCE CORPORATION

The present Act was passed in 1948 and amended in 1951. The Scheme was launched in February 1952 in Kanpur and Delhi with the objective of spreading it over the whole country in two years. At present, however, it covers ten States and more than eleven lakhs of workers who constitute nearly half the factory workers in the country.

A Central Fund has been set up under the scheme Workers receiving less than 30 rupees a month as wages make no contribution to it but get all the benefits Those receiving between 30 and 45 rupees a month contribute 2 as a week and the scale rises until a rupee and four annas is charged a week from workers getting 240 rupees a month or more But no one receiving more than 400 rupees a month can join the scheme.

Workers covered by the scheme get free medical advice and treatment at special dispensaries set up for the purpose or, if necessary, in their homes. They are admitted to hospitals free of cost and in remote areas medical aid reaches them in mobile dispensaries. If they fall ill, they receive a little more than half the daily wage as sickness benefit and can go on receiving it for 8 weeks in any period of 365 days. If they are injured in the course of their duties, they get a cash benefit in instalments and if the injury disables them permanently, they get benefits for the rest of their lives. If the injury proves fatal, long-term pensions are given to their dependents. Women can get 12 as. a day or the full sickness benefit for 12 weeks at a time as help during maternity.

The scheme is administered by a Corporation. The Government of India pays two-thirds of the administrative costs and the State Governments meet a share of the medical expenses. Employers all over the country meet part of the expenditure, whereas workers make their contribution only in areas where the scheme is already in force.

INDIAN INDUSTRY

ADMINISTRATIVE SET-UP—On the 'Industries' side the Ministry of Commerce and Industry's activities include the encouragement and ordered development of large and small scale industries in the private and public sectors, assistance to industries, development and control of plantation industries and active promotion of overall industrialisation. The Ministry also exercises control over production, distribution and prices of certain essential commodities like cement and is also responsible for regulation of "Forward Trading."

The executive work of the Ministry is carried on by the several attached organisations which are as follows—

(1) *Office of the Chief Controller of Imports and Exports, New Delhi*—It is responsible for the execution of the Government's policies relating to import and export control. Branch offices are functioning in Amritsar, Bombay, Calcutta, Cochin, Madras, New Delhi, Pondicherry, Rajkot, Shillong and Visakhapatnam.

(2) *Office of the Textile Commissioner, Bombay*—This office is responsible for the development and regulation of all textile industries other than the jute and sericulture industries.

(3) *Development Wing, New Delhi*—The primary function of this wing is to assist and advise the Ministry in formulating and executing plans relating to the control and regulation of industries. Its main responsibility is to deal with the problems of planning and development of large and medium scale industries, with some exceptions like textile, sugar and vanaspati industries.

(4) *Office of the Development Commissioner for Small Scale Industries, Delhi*—is responsible for development and fostering of small scale industries.

(5) *Office of the Economic Adviser*—renders technical advice to the Ministry on all issues of economic nature.

(6) *Tariff Commission*—is a statutory body and inquires into claims for protection to industries as well as other allied matters referred to it by the Central Government. It also reviews the manner in which protection is granted to industries.

(7) *Office of the Salt Commissioner, New Delhi*—It is an attached office with four regional offices at Sambhar, Bombay, Madras and Calcutta and is responsible for the administration of Salt Cess Act, quality control of salt, etc.

(8) *Office of the Director General of Intelligence and Statistics* compiles and publishes statistics of India's foreign and inland trade. It is in charge of commercial intelligence work.

(9) *Forward Markets Commission, Bombay*—is a statutory body entrusted with the regulation of forward markets in pursuance of Forward Contracts (Regulation) Act, 1952.

(10) *Office of the Controller of Patents and Designs*—administers the Patents and Designs Act. The office is located at Calcutta.

(11) *Office of the Registrar of Trade Marks, Bombay*—The administration of the Trade Marks Act, 1940 is entrusted to the Registrar of Trade Marks. The Registry is located at Bombay and has branch offices at Calcutta and Bangalore.

(12) *Indian Standards Institution*—This is a quasi-Government Institution which is responsible for drawing up standards for the products of Indian industries.

(13) *Office of the Custodian of Enemy Property, Bombay*—This office is responsible for the administration and disposal of assets in India of former enemy countries.

(14) *The Khadi and Village Industries Commission*—was established in pursuance of the khadi and village Industries Act 61 of 1956 replacing the advisory body known as the All India Khadi and Village Industries Board set up in 1950. The functions of the Commission are to plan, organise and implement programmes for the development of khadi and village industries.

(15) *All India Handicrafts Board*—The Board was initially constituted in 1952 to advise Government on measures to be taken for the development of handicrafts.

(16) *The Central Silk Board*—was constituted as a statutory body in 1949. It is vested with the responsibility of looking after the development of sericulture and silk industry and co-ordinates development work in States. It also undertakes schemes of research, training of staff and development of special race of silk worms. Its headquarters is at Bombay.

(17) *Central Sericultural Research Station, West Bengal*—is located at Berhampore (West Bengal). It is responsible for research into the improvement and development of the sericulture industry and cocoon production. A sub-section is located at Kalimpong.

(18) *The Tea Board*—The Tea Board administers the Tea Act of 1953 and is concerned with measures for the development of the tea industry in India including the control of the cultivation of tea and propaganda.

(19) *The Coffee Board*—is a Statutory Board and its function is the development of coffee industry.

(20) *Rubber Board*—is responsible for the development of the rubber industry.

(21) *The Coir Board* was established at Ernakulam under the Coir Industry Act of 1953 for the development of coir industry.

(22) *The All India Handloom Board* was constituted in 1952. It advises Government generally on the problems of the handloom industry.

(23) *The Jute Controller, Calcutta*—administers Jute Textiles (Control) Order, 1956.

(24) The following *State Undertakings* are functioning under the control of this Ministry—(1) Sindri Fertilisers and Chemicals (2) Nangal Fertilisers and Chemicals (3) Hindustan Machine Tools (4) Hindustan Cables, Rupnarainpur (5) Hindustan Insecticides, Delhi and Alwaye (6) Hindustan Antibiotics, Pimpri (7) Heavy Electricas (8) National Instruments, Calcutta (9) Nahan Foundry (10) National Industrial Development Corporation (11) National Small Industries Corporation (12) State Trading Corporation (13) Export Risks Insurance Corporation.

INDUSTRIAL POLICY OF THE GOVERNMENT—The Industrial Policy of the Government of India was first promulgated in their Resolution on 6th April, 1948. This envisaged a mixed economy with an overall responsibility of the Government for the planned development of industries and their regulations in national interest. While it stated the right of the State to acquire an industrial undertaking in the public interest, it reserved the appropriate sphere for private enterprise. Industries were classified under three heads. First category included arms and ammunition, atomic energy, river valley projects and the railways, which are declared to be State monopolies. The second included coal, iron and steel, aircraft, telephones, telegraphs, wireless, shipbuilding, and mineral oils, which were to be the responsibility of the state. The existing private undertakings in these industries were, however, to continue for at least ten years. In the third category was the rest of the industrial field which were left open to private enterprise. A fresh statement of industrial policy was announced by the Government on April 30, 1956, due to the acceptance of a socialistic pattern of society as the objective. Under this, the State can assume direct responsibility for the future development of industries over a wider area than before. Under the revised policy, 17 key industries specified in Schedule A will be the exclusive responsibility of the State and twelve in the Schedule B of those which will be progressively State-owned. The remainder (not listed) will be left to the private sector. The statement promises private industrial undertaking "as much freedom as is consistent with the targets and objectives of the National Plan." It assures fair and non-discriminatory treatment in cases where both sectors exist in the same industry.

SCHEDULE A INDUSTRIES—Arms and ammunition and allied items of defence equipment, atomic energy, iron and steel.

Heavy castings and forgings of iron and steel, heavy plant and machinery required for iron and steel production, for mining, for machine tool manufactures and for such other basic industries as may be specified by the Central Government; heavy electrical plant, including large hydraulic and steam turbines.

Coal and lignite, mineral oils.

Mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond; mining and processing of copper, lead, zinc, tin, molybdenum and wolfram; minerals specified in the schedule to the Atomic Energy (Control of Production and Use) Order, 1953.

Aircraft; air transport, railway transport.

Shipbuilding; telephones and telephone cables; telegraph and wireless apparatus (excluding radio receiving sets); generation and distribution of electricity.

SCHEDULE B INDUSTRIES—All other minerals except "minor minerals" as defined in section 3 of the Minerals Concession Rules, 1949; aluminium and other non-ferrous metals not included in Schedule A.

Machine tools, ferro alloys and tool steels.

Basic and intermediate products required by chemical industries, such as the manufacture of drugs, dyestuffs and plastics.

Anti-biotics and other essential drugs; fertilizers, synthetic rubber; carbonization of coal; chemical pulp.

Road transport. Sea transport.

CONTROL OF INDUSTRIES—The industrial policy of the Government enuncited in 1948 and 1956 envisaged state regulation and control of industries. These powers of the Government had to be acquired by legislation. The first step in this direction was passing of *Industries (Development and Regulation) Act* of 1951. Under this Act, all new and existing undertakings are to be licensed. The Government is authorised to examine the working of any industrial undertaking and to issue directions as it considers necessary. If the undertaking continues to be mismanaged, the Government is empowered to take over the management.

The Act also exvisaged the establishment of a *Central Advisory Committee* consisting of the representatives of industry, labour, consumers and primary producers to advise the Government on all matters concerning the development and regulation of industries. It also provides the setting up of *Development Councils* for industrial industries

Other important Act for control of industries is *Mines & Minerals (Regulation and Development) Act*, 1948 together with Mineral Concessions Rules and the Petroleum Concessions Rules framed under it. It empowers the Central Government to frame rules for regulating the terms and conditions of prospecting licenses and mineral leases, the conservation and development of minerals and the modification of existing licenses and leases on payment of compensation.

A *Licencing Committee* has also been set up to examine application for licences of industries.

FINANCIAL AID TO INDUSTRY—Various credit institutions have been started by the Central and State Governments in recent years for the development of industries in the country. *The Industrial Finance Corporation of India* started in July 1948 is the earliest of such institutions for medium and long-term loans to the industrial concerns of India. Its authorised share capital is Rs. 10 crores. The capital is guaranteed by the Government of India as to the repayment of the principal and of a minimum dividend at the rate of 2½ p.c. per annum. The *State Financial Corporation Act of* 1951 envisages the establishment of industrial finance corporations in the States with a view to financing medium and small-scale industries which do not fall within the scope of All-India Industrial Finance Corporation. There are now 13 State Financial Corporations in India. The Industrial Finance Corporation of India and the State Financial Corporations have been followed by the *National Industrial Development Corporation* and the *Small Industries Corporation, Industrial Credit and Investment Corporation.*

The Industrial Credit and Investmemnt Corporation has been registered on Junuary 6, 1955.The primary object of the Corporation is to assist industrial enterprise within the private sector of industry in India. Its purpose generally is to assist the creation, expansion and modernisation of such industrial enterprises, to encourage and promote the participation of private capital both internal and external in these enterprises and to encourage and promote private ownership of industrial investments.

The Corporation will provide finance by way of long and medium term loans or participate in the equity capital of industry or guarantee loans for other private investment sources.

Private investors for India, the UK and the USA will subscribe to the initial share capital of the Corporation, which will be Rs. 5 crores. The authorised capital of the Corporation will be Rs. 25 crores, divided into 500,000 ordinary shares and 2,000,000 unclassified shares of Rs. 100 each.

National Industrial Development Corporation was registered as a private company on October 20, 1954, with an initial capital of Rs. 1 crore, of which Rs. 10 lakhs has been subscribed. The main functions of the Corporation are (1) to formulate and, where necessary, execute projects for setting up new industries (2) to act as the agency of the government for the grant of loans for rehabilitation and modernisation of jute and cotton textile industries. The finances required by the corporation are provided by the government in the shape of grants and loans.

Development Councils for the under-mentioned industries have been set up by the Ministry—(1) Heavy Electricals Industry (2) Light Electricals Industry (3) Internal Combustion Engines and Power Division Pumps (4) Machine Tools (5) Non-ferrous metals (6) Bicycles (7) Heavy Chemicals (Acids and Fertilisers) (8) Heavy Chemicals (Alkalies) (9) Pharmaceuticals and Drugs (10) Woollen Textiles (11) Art Silk Textiles (12) Sugar.

The latest development is the starting of *National Small Industries Corporation* to provide marketing and other assistance to small industries. It will accept contracts for Government orders and sub-contract them out to suitable small industries. In order to decentralise the work relating to hire-purchase of machinery, marketing etc, which was being done by the Corporation at Delhi, the following, etc., which was being done by the Corporation at Delhi, the following four subsidiary Corporations have been established at Delhi, Bombay, Calcutta and Madras in 1957—National Small Industries Corporation, Delhi ; National Small Industries Corporation, Bombay ; National Small Industries Corporation, Calcutta ; National Small Industries Corporation, Madras.

Refinance Corporation of Industry Private Ltd. has been started in 1958 to augment the resources available for the use of medium-sized industrial units in the private sector. The Refinance Corporation is designed to assist banks to lend money to industries.The authorised capital is Rs. 25 crores and the issued capital is Rs. 12½ crores contributed jointly by the Reserve Bank of India, Life Insurance Corporation and 15 of the larger scheduled banks.

Industrial Estates—Industrial estates are being established in the different parts of the country by the Government. It has two-fold objects ; it seeks to remove small industrial units from crowded urban areas and thus reduce the pressure on the latter and secondly it seeks to provide small units with factory space and common facilities for efficient working. The Ministry of Commerce and Industry have so far sanctioned the setting up of 9 industrial States in the country. The Government of India advance to the States the entire cost of the estates on loan ; grants are also given for specific purposes.

State Trading Corporation was set up in May 1956 as a private limited company with an authorised capital of Rs. 1 crore. The objectives of the Corporation are to organise exports from and imports into India of such goods and commodities as the Corporation from time to time may determine and to do all such other things as are incidental or conducive to the attainment of the above objects. The Corporation mainly seeks out opportunities to make its contribution towards the building up of the country's commerce with new markets and new sources of supply, providing facilities to augment exports, securing, wherever possible, improvement on terms of trade and economics in imports and arranging, to the extent practicable, for import and distribution of certain essential new materials at stable

National Productivity Council—has been set up as an autonomous body with the object to inculcate productivity consciousness in the country and apply the latest techniques of increasing productivity in industry.

Indian Standards Institution—In 1947 Indian Standards Institution (ISI) was set up. The Indian Standards Institution has for its objects the preparation, promotion and general adoption at the national and international levels of standards relating to materials, commodities, structures, practices and operations. The Indian Standards Institution is the National Standards Organisation for India similar to the National Standards bodies in other countries, such as British Standards Institution in the United Kingdom. An important step taken by the ISI to aid industrialists to produce quality goods and for consumers to recognise them, is the establishment of ISI Certification Marks Division which issues licences to manufacturers to stamp their goods with a standard mark, certifying that the goods conform to the relevant Indian standard.

ISI collaborates closely with the International Organisation for Standardization (ISO) and the International Electro-technical Commission (ISC), two important bodies engaged in international standardization. Close liaison has also been established with National Standard Bodies of the Commonwealth.
prices.

Foreign Capital—The Government's policy in regard to the foreign capital was enunciated in the Industrial Policy Resolution of April 1948, which laid down—

(1) the participation of foreign capital and enterprise should be carefully regulated in the national interest, for example, by ensuring that the major interest in ownership and effective control should, save in exceptional cases, always be in Indian hands and that the training of suitable Indian personnel for the purpose of eventually replacing foreign experts will be insisted upon in all such cases;

(2) there will be no discrimination between foreign and Indian undertakings in the application of general industrial policy;

(3) reasonable facilities will be given for the remittance of profits and repatriation of capital consistently with the foreign exchange position of the country;

(4) in the event of nationalisation, fair and equitable compensation would be paid.

The Planning Commission has also recommended the inflow of foreign capital should be encouraged. With that end in view, it has recommended that Indian and foreign capital should collaborate in new ventures. Some foreign concerns have already been set up in India in partnership with Indian firms; on the other hand Government have started big public concerns with the help and co-operation of foreign firms.

NATIONALISED INDUSTRIES—Government of India and the State Governments have set up a number of important industries as State enterprises. From the point of view of management, the existing State enterprises can, broadly speaking, be classified under three categories, namely (*a*) enterprises owned and managed by the Government Department, (*b*) enterprises owned and managed by public corporation and (*c*) enterprises owned by the Government wholly or in partnership with private agencies and managed as private limited companies. Railways, Posts and Telegraphs and Chittaranjan Locomotive works are the instances of State enterprise. The Airlines, D V. C. and Shipping are run by public corporations, while most of the industrial enterprises proper are run by private limited companies

1. **Sindri Fertilizers and Chemicals (P) Ltd.**—*Sindri Fertilizer Factory* has been constructed at Sindri at a cost of about Rs. 23 crores and went into production at the end of October 1951. Sindri has a production target of 1,000 tons of ammonium sulphate daily or about 350,000 tons a year. The Sindri factory is producing at present only ammonium sulphate.

2. **Hindustan Aircraft Ltd**—In the *Hindustan Aircraft Factory* at Bangalore, Government of India owns a two-thirds share.

Governments of India and Mysore are the only two share-holders. It is now Government's instrument for manufacturing aircraft under the control of the Ministry of Defence. The factory caters to the needs of the Indian Airlines and the Indian Air Force for repairing, overhauling and servicing different types of aircraft. It builds H.T.2, a trainer aircraft for civilian and defence purposes. The Company has undertaken the assembly and manufacture of Vampire jet aircraft. It also manufactures all-steel rail coaches for Indian railways and bus bodies.

3 **Chittaranjan Locomotive Works**—For lessening the dependence of the Indian Railways upon foreign sources for locomotives, the Government have started at a cost of Rs. 15 crores a Locomotive Workshop at Chittaranjan (Mihijam). It is designed to produce 120 locomotives and 50 spare boilers per annum. This is in addition to the existing railway workshops and repair establishments. The work was started early in 1948 and first India-made locomotive from assembled parts was produced in 1950 and named *Deshabandhu.*

4. **National Instruments (P) Ltd, Calcutta**—It was originally started as the Mathematical Instruments Office in 1830 for the repair and service of instruments used by the Survey of India. It has now been converted into a private limited company in 1957 under the name of National Instruments (P) Ltd. It has now begun to manufacture all kinds of precision instruments—mechanical, optical, electrical, aircraft, etc. The manufacture of new items like the theodolites, high temperature thermometers and rod stadia has been undertaken.

5. **Integral Coach Factory, Perambur**—State-owned Integral Coach Factory at Perambur in the north-west of Madras went into production in October 1955 for the manufacture of all steel light weight integral rail coaches. The factory has taken its name from the "integral" coaches which it will manufacture. Unlike the conventional type in which the coach-body is merely mounted and fixed to a separate steel under-frame, the integral coach as its name suggests, will have its body and under-frame integrated into a single unit, all made of steel, with several advantages over the present type. It will have smoother riding qualities and will, therefore, be much less jerky while on the run. Being seven tons lighter than the conventional 42-ton coach, more coaches can be hauled per locomotive. It has anti-telescopic device, which will afford greater protection to passengers in case of an accident and its body will not get smashed up as easily as in old type coach in which the body, being a separate piece, gets pushed off and broken up in an accident.As a result of an agreement between the Government of India and the Swiss Car & Elevator Manufacturing Corporation Ltd. of Schlieren, Switzerland, the latter is providing the technical "know-how" including specialised personnel as well as the necessary training facilities at its works in Switzerland.

6. **Nangal Fertilisers & Chemicals (Private) Ltd.**—It is a fertiliser and heavy water project. The factory is expected to go into production in 1960. The authorised capital of the company is Rs. 30 crores. Vitro Engineering Division of New York has been engaged as techni-

cal consultants. The fertilizer factory is scheduled to be completed by 1960, when power from the Bhakra Dam generators is expected to become available.

7. **Hindustan Antibiotics, Pimpri (Poona)**—This company for the manufacture of penicillin, the only one of its kind in India and the largest in the East, was set up by the Government of India with the financial and technical assistance from UNICEF and WHO. The private company was formed in 1954. Its authorised capital is Rs. 4 crores, out of which Rs. 3.32 crores has been subscribed so far exclusively by the Government of India. The factory has gone into production since 1956-57.

8. **Hindustan Housing Factory**—The Hindustan Housing Factory Ltd., was incorporated on January 27, 1953 as a private limited company with the Government of India and Basakha Singh-Wallenborg Ltd. The agreement with Basakha Singh-Wallenborg Ltd. has been terminated and the factory has been taken over by the Government of India from August 1955. The factory is now manufacturing transmission poles, street light poles, industrial heavy beams, prefab. Roofs, doors, windows, foam concrete and partition blocks.

9. **Nahan Foundry, Sirmur, Himachal Pradesh**—A small unit, the Nahan Foundry (Himachal Pradesh), came under the ownership and control of the Government of India in October 1952. The Foundry manufactures sugarcane crushers, sugar boiling pans, paddy threshers and other miscellaneous articles. It has recently started producing centrifugal pumps, paddy threshers and corn shellers. A private limited company called the Nahan Foundry Ltd., was incorporated on Oct. 20, 1952 for the management of the foundry.

10. **Eastern Shipping Corporation**—The Corporation has been formed for increasing India's overseas shipping. The estimated cost of the enterprise is Rs. 1.48 crores. 74 per cent of the subscribed capital is owned by the Government of India. Corporation has purchased two ships for a total cost of Rs. 44 lakhs. It is now engaged in the Indo-Australian trade.

11. **Hindustan Machine Tools (P) Ltd.**—The control and the management of this factory is under Hindustan Machine Tools Ltd., Jalahalli, Bangalore. The authorised capital of the company has been fixed at Rs. 12 crores, divided into 1,20,000 ordinary shares of Rs. 1000 each. The issued and called-up capital for the present is Rs. 4 crores. The factory has been built up with the assistance of the firm of Oerlikons of Switzerland. This firm is the technical consultants of the Company. The Company went into production in 1954.

12. **Hindustan Cables Ltd.**—The factory has been started at Rupnarainpur, West Bengal to meet the requirements of the Posts and Telegraphs Department with regard to paper insulated, lead-covered and armoured telephone cables. The Drum shop for the manufacture of cable drums was completed and commissioned in the middle of December, 1953. It has been built at a cost of 110 lakhs.

13. **Hindustan Shipyard**—The foundation stone of the Hindustan Shipyard was laid on June 21, 1941. The keel for the first ocean-going 6,000 tonner steamship was laid in June 1946 and was launched in March 1948 by Mr. Nehru. The Government of India took over the Shipyard in March 1952 recognising the national importance of the industry. A new Government-sponsored company, the Hindustan Shipyard Private Ltd., in which two-thirds of the share-capital was held by the Government and the remaining one-third by the Scindia Steam Navigation Company was incorporated for this purpose. The shipyard is now equipped with four large slipways and adequate workshops and jetty. The shipyard has so far built a total of 23 ships. Nine more ships are planned to be built during the Second Plan period. The total tonnage built at the yard touches the 100,000 GRT mark upto June 1958.

14. **Machine Tools Prototype Factory**--which has been stated at Ambarnath (near Bombay) in April, 1951 designs special type of tools and machines required for use by ordnance factories. This project forms a landmark in the development of the nation's defence industries. A novel feature of the factory is a training school attached to it which will train 100 skilled artisans every year. This factory will meet to a considerable extent the need for the production of prototypes for the new defence equipment.

15. **Indian Telephone Industries Ltd.**—Under the name of Indian Telephone Industries Ltd., a telephone factory has been started at Bangalore by the Government of India. The Union Government holds 90 p.c. of the shares, and the remaining shares are held by the Government of Mysore and the Automatic Telephone & Electric Co. Ltd., of England. The factory is manufacturing all types of telephone equipment and long-distance carrier equipment.

16. **Hindustan Insecticides Ltd. Delhi**—This D.D.T. factory has boen set up at Delhi in 1955 with the assistance and technical collaboration of the UNICEF and CNICEF. It was agreed that all the productions of this factory would be utilised for public purposes without cost to ultimate beneficiery.

17. **D.D.T. Factory, Always (Kerala)**—The Government of India has started a second D.D.T. Factory at Alwaye with a capacity to produce 1,400 tons of technical D.D.T. per annum. It has already gone into production. The Alwaye factory has been put up with the help of an American firm. With the completion of the Alwaye project and the expansion of the Delhi factory, India's current requirements of anti-malaria insecticides will be met internally. Both the Delhi factory and the Alwaye project are being managed by the Hindustan Insecticides (Private) Limited, a Government-owned company.

18. **Indian Explosives Factory**—The Government of India entered into an agreement with Imperial Chemical Industries to set up a factory for the manufacture of India's requirements of industrial blasting explosives. The necessity for this has arisen on account of the development of the mining industry, as also the extension of irrigation works, road buildings, dams, power houses, coal mining and iron ore industries, the working of quarries, the building of rail-

ways, etc. Indian Explosives Ltd. is a public company in which the Government of India holds 20% of the equity capital and I.C.I. the remaining 80%. The authorised capital of the company is Rs. 4 crores. This factory was opened on the 5th Nov. 1958 at Gomia, district Hazribagh, Bihar and the Company will handle the distribution and sale in India of manufactured explosives and will give technical service to consumers.

19. **Bharat Electronics (P) Ltd.**—The Government of India registered on April 19, 1954 a company known as Bharat Electronics (Private) Limited to set up a large scale industry for the manufacture of wireless and electronic equipments primarily for the defence services and civil departments of the Government. The entire capital of Rs. 9 crores is provided by the Government of India. Jalahalli near Bangalore is the area where the factory has been started. The factory began production in December, 1955.

20. **Steel Projects**—The Steel Projects of the Government of India are under the united control of Hindustan Steel (Private) Ltd. (1) *Rourkela Steel Project*—An agreement was signed with Krupp-Demag Combine of Germany for financial and technical collaboration in the execution of 500,000 ton Rourkela Steel Plant in Orissa in 1953. Krupp-Demag was to give technical assistance and train Indian personnel. They were to invest in the capital of the Company. A private limited company was started with an authorised capital of Rs. 100 crores. The ratio of shares held by the Government of India and the German Combine will be maintained at four to one. (2) *Bhilai Steel Project*—An agreement was entered in 1955 with the Soviet Government in February 1955 for the erection of a one-million steel plant at Bhilai in Madhya Pradesh for the setting up of a modern integrated Iron and Steel Plant with an initial capacity of one million tons of ingots to be rolled into about 150,000 tons of rolled products. The total cost of plant has been estimated at Rs. 110 crores. Of this, the Indian expenditure on materials and construction would be Rs. 47 crores. (3) *Durgapur Steel Project*—The British Steel Consortium's Project for one-million steel plant at Durgapur, Bengal, has since been signed by the Government of India in March, 1956. To finance the sterling expenditure, the Government shall get loan of £11.5 million from a syndicate of British Banks and a loan of £15 million from the United Kingdom Government. The plant at Durgapur would be capable of producing 1.3 million tons of ingots.

21. **Lignite Factory**—A private limited company has been formed in 1956 under the name of *Neyveli Lignite Corporation (Private) Ltd.*, entirely financed by the Central Government for the production of lignite coal at Neyveli, South Arcot district in Madras. The factory is in the process of construction. The operation is expected to begin shortly. A 250,000 kw. thermal power station to consume 1.5 million tons of the mined lignite annually would be established under the 500 million rubble Soviet credit. A fertilizer factory at Neyveli for the annual producion of 1.52 lakh tons of urea with a fixed nitrogen content of 70,000 tons would be set up by the Government.

22. **Ashoka Hotels Ltd., New Delhi**—A public limited company

which wanted to start a big hotel in New Delhi got certain assistance from the Government of India, but it could not raise the requisite finance. So ultimately in May 1956 the entire project was taken over by the Government of India which built a hotel known as Ashoka Hotel, which started functioning from October 1956.

23. **Heavy Electricals (Private) Ltd.**—The Government of India have set up a factory at Bhopal for the manufacture of heavy electrical equipment in the country. The factory will produce a large variety of electrical goods including transformers, motor switch gears, control gears and electrical cables. The Government of India have entered into an agreement with the Associated Electrical Industries of Britain for the execution of the work. A private limited company with an authorised capital of Rs. 30 crores completely owned by the Government was incorporated on August 30, 1956.

24. **Bombay Uranium-Thorium Factory**—The foundation stone of the factory was laid in January 1954. The cost of the factory is estimated to be Rs. 45 lakhs. It will produce 205 to 228 tons of thorium nitrate per annum. The factory will process indigenous uranium and thorium ores, as well as uranium-bearing residues of Indian Rare Earths Ltd. The uranium will be extracted, purified and converted into metal for use in atomic reactors. A plant will also be set up in the Bhakra-Nangal area to manufacture fertilizers and heavy water, the latter of which is essential in the production of atomic energy.

25. **National Coal Development Corporation**—has been registered at Ranchi in 1956 with an authorised capital of Rs. 15 crores to take charge of production of coal in the public sector. The coal company has been formed to own and manage the existing State collieries as well as the new collieries to be established.

26. **Indian Rare Earths (Private) Limited**—was set up in August, 1950 jointly by the Government of India and Kerala. This factory is designed to treat 1,500 tons of monazite per year and to produce therefrom about 1,500 tons of rare earth and also carbonate and sodium phosphate.

27. **Travancore Minerals (Private) Ltd.**—This industry was started in 1956 jointly by the Government of India and the Government of Kerala for taking over all sand separation undertakings from a previous company.

28. **Hindustan Salt Factory**—The Company has been set up by the Government of India to take over the Government Salt Works at Sambhar and Didwana in Rajasthan and Kharaghoda in Bombay respectively. The Company was registered on April 12, 1958 under the Indian Companies Act and will, among other things, undertake the manufacture, utilisation and processing of salt and its bye-products. The authorised capital of the Company is rupees one crore.

29. **Orissa Mining Corporation (Private) Ltd.**—This private Company was set up in May 1956 as a joint venture of the Government of India and the Government of Orissa. The main object of the Company is to raise, assemble and transport iron and other minerals

in Orissa for the purpose of sale or export or for undertaking of other responsibilities incidental or conducive to the attainment of the above objects.

30. **Heavy Engineering Corporation**—The Government of India have started a new Company, called the Heavy Engineering Corporation, for the administration of different engineering projects under contemplation in 1958. The projects include the Heavy Machine Building and Coal Mining Machinery Plant for which assistance has been secured from the Soviet Union and the Foundry-Forge plant being established with Czech assistance. The Company has been registered at Patna and will have its registered office at Ranchi where two of the plants in view are to be set-up.

DESCRIPTION OF INDIAN INDUSTRIES

1. TEXTILE INDUSTRY—The Textile Industry of India is believed to have started on 22nd February, 1854. It occupies the foremost place among the organised industries of India. It has the largest capital structure—the amount invested being Rs. 110 crores—provides employment for nearly 800,000 and produce goods of the value of nearly one-third of the organised industries in the whole of India.

Although Bombay, Ahmedabad, Sholapur, Kanpur, Nagpur, Indore, Madurai and Coimbatore are the main centres of the industry, the Bombay State counts for more than half of it.

Cotton Textiles Export Promotion Council has been formed in 1954 to organise and generally put the export trade in textiles on a stable footing in the face of increasing competitions from other textile producing countries.

The *Office of the Textile Commissioner,* Bombay is mainly responsible for the execution of government's policies in respect of affording necessary assistance and for taking other steps for the betterment and development of cotton, woollen and art silk industries.

The *Cotton Textile Fund Committee* was constituted to administer the Cotton Textile Fund, which was established under the Cotton Textile Funds Ordnance 1944, for supervising the export of Indian cloth and yarn and for the development of technical educaton, research and other matters relating to cotton textile industries.

Textile Research—Ahmedabad Textile Industry's Research Association has been in the field of research in textile industry since 1948. Under the guidance of the Cotton Textiles Fund Committee, two new research associations—Bombay Textile Research Association and South India Textile Research Association, have come into being.

A feature of the cotton textile industry has been the levy of excise duties since the year 1949. The duties were fixed on *ad valorem* basis in earlier stages, but later on they were turned on square yardage basis.

2. IRON AND STEEL—There are at present three main producers of iron and steel, viz., the *Tata Iron and Steel Co.*, the *Indian Iron and Steel Co.*, and the *Mysore Iron and Steel Works* at Bhadravati. The total capacity for pig iron and finished steel is estimated to be 1,878,000 and 1,050,000 tons per annum respectively. The in-

dustry is mainly concentrated at the present time in Bihar and West Bengal. The Tatas were the first in the field of steel production. They started in 1908 and gradually built up their production to the present level of 800,000 tons per annum, consisting mainly of rails, structures, billets, bars, plates, etc.

The important raw materials of the industry are iron ore, coking coal, manganese ore, refractories made from magnesite, dolomite, chromite, fire clay, etc., and fluxing materials like silica, limestone, flourspar. In regard to most of these raw materials, India enjoys a favourable position. The deposits of iron ore, which are the principal raw material of the industry, are plentiful and of superior quality. The average iron content of the ore is between 60 and 59 p.c. as compared to 40 p.c. in Europe, and 50 p.c. in United States.

The three steel factories started in the public sector are one at Rourkela in Orissa, one at Bhilai in Madhya Pradesh and one at Durgapur in West Bengal. An agreement was signed on 15th August, 1953 between Government of India and a German Combine of *Demag and Krupp* to build up a new steel plant at Rourkela. The agreement provides for both financial and technical participation in the plant by the German combine. The estimated capital cost of the new plant is 150 million with a German participation of up to 20 million. Rourkela is 275 miles from Calcutta on the main railway line between Calcutta and Bombay. The production has now started from 1959.

Another agreement has been signed between the Government of India and Russian Government for starting second steel factory at *Bhilai* in the Drug district of Madhya Pradesh. Bhilai is a railway Station on the main railway line from Bombay to Calcutta. It is 156 miles from Nagpur. In the establishment of this plant, the Government of U.S.S.R. has given economic and technical assistance. Except for such work as can be done in India, the Government of U.S.S.R. is responsible for design and manufacture of the plant in that country. The Bhilai Plant will produce heavy products like rails and structures. The production has now started from 1959.

The third steel plant in the public sector is located at *Durgapur* in West Bengal, which is 110 miles from Calcutta in the main Calcutta-Delhi railway line. A contract has been signed on 31st October, 1956 by the Government of India and a Consortium of British manufacturers for setting up the Durgapur Steel Plant. The contract was for a grand total of Rs. 138 crores. The company is responsible for supply, construction and erection of the plant in its entirety.

Ancillary Industries—The iron and steel industry in India may be divided broadly into two categories—basic and re-rolling. The main producers who may be placed in the first category is iron ore which makes pig iron out of which they manufacture steel. Alongside these, there is a wide range of subsidiaries. There are the re-rollers who produce certain sections of steel machines from billets and scraps supplied by the main steel producers. It is estimated that there are about 95 steel re-rolling mills in India. Following are the main ancillary industries—(1) *Tinplate* for the metal box and container produced by the *Tinplate Company of India Ltd.,* (2) Production of wide range of light rod, hard bright, galvanized and barbed wire, wire nails, bolts and nuts and rivets by *Indian Steel Wire Products Ltd.* and others who can manufacture railway permanent way equipment including steel sleepers, points and crossing rails, signal materials, special bolts and nuts, (3) there is a steel processing industry for construction of wagons and other railway rolling stock. The most important among them is the *Indian Standard Wagon Co., Ltd.,* (4) there are companies producing machine tools.

3. **JUTE**—This important textile industry has the distinction of accounting for approximately a quarter of the total export trade of the country. The progress of the industry can be gauzed from the fact that India has today become the chief jute manufacturer, consuming more than 60% of the raw jute of this sub-continent. The total capital invested in the industry is about Rs. 30 crores and the industry employs more than 3 lakhs of workers on the average.

At present the mills concentrate on producing mainly (1) *gunny bags* or cloth used for packing rice, wheat, oil seeds etc.; (2) *hessian cloth* or *bags* used for bailing cotton, wool and other fibres; (3) *coarse carpets* and *rugs* and (4) *cordage,* (5) *jute tarpaulins* (6) *haper-lined hessian, jute carpets and jute webbing.*

The jute industry has a total of 72,365 looms whch represent 53 per cent of the total loomage in the world. There are in all 112 mills of which 101 are in West Bengal. There are 82 jute mill companies managing these 112 mills. Their total capacity is about 100,000 tons of jute goods per month on the basis of a single shift of 48 hours a week. The total value of jute goods produced in a year is about Rs. 130 crores. There has been no Government control of production or distribution of jute goods. The only control in vogue is that exercised by the Indian Jute Mills' Association, the main object of which is to ensure that production and supply are tuned to the world demand.

4. COAL INDUSTRY—The production, distribution and prices coal are administered by the *Department of Mines and Fuel* in the Ministry of Steel, Mines and Fuel. This Department has a *Coal and Lignite Division.* It deals with the following things—Regulation and control, distribution and transportation, coal prices, coal controller's organisation, production in the private sector, amalgamation of collieries, production in the public sector, National Coal Development Corporation, establishment of coal washeries, synthetic oil, soft coke, Coal Board, safety measures in coal mines and conservation of coal, Coal Council of India and Coal Transport Advisory Committee. *Coal Controller, Calcutta* is responsible for regulating the production of coal and arranges for its distribution and movement. He also acts as the Adviser to the Government of India in the matter of fixation of statutory prices of coal. The Government of India have established a high-powered body known as *Coal Council of India* for reviewing and studying and planning the development, utilization and due conservation of coal resources of the country. There is also a *Coal Advisory Committee,* whose function is strictly advisory. It deals with all matters pertaining to con-

trol exercised by the Coal Controller, as well as cases brought to it by the official members. There is a *Coal Board* in Calcutta which is a statutory body set up under the Coal Mines (Conservation and Safety) Act of 1952 for dealing effectively with the problems relating to safety in mines and conservation of coal. The *National Coal Development Corporation (P) Ltd.*, at Ranchi was formed in 1956 with an authorised capital of Rs. 50 crores. The administrative control of the existing State collieries and of those proposed to be established is future was entrusted to this Corporation. Under the *Coal Mines (Conservation and Safety) Act*, 1952 which was a positive step for the conservation of metallurgical coal, the production of coking coal was pegged from 1952. The *Fuel Research Institute* at Dighwadi helps to spread the knowledge of the composition of coal and of factors that influence its behaviour when heated.

Coal mines are largely in the hands of private enterprise. The Government owns only eleven collieries which supply coal primarily to the railways. Pakistan and Japan are the biggest purchasers of Indian coal at the moment.

5. ALUMINIUM INDUSTRY—The internal primary production in India began in a small way around 1942. India's total bauxite reserves are estimated at about 250 million tons, but workable deposits containing over 50 p.c. alumina are estimated only at 28 million tons. Even at this assessment, an annual output of 50,000 tons of finished aluminium could be maintained for over 100 years. The chief producers are the *Aluminium Corporation of India* (installed capacity 2,500 tons a year working at Asansol) and the *Indian Aluminium Company Ltd., Calcutta* (5,000 tons a year). The latter company has its aluminium works at Muree in Bihar, its aluminium smelter at Alwaye (Kerala) and its rolling mills at Belur near Calcutta. The Company has set up another aluminium smelter at Hirakud. Among the non-integrated fabricators must be mentioned Venesta Ltd., Calcutta which produce foil in sufficient quantity to supply practically all the country's requirements of tea-chest liners. Aluminium conductor manufacturers, besides the Aluminium Industries Ltd., are the Indian Cable Co. Ltd., Tatanagar, National Insulated Cable Co., Shamnagar, Electrical Manufacturing Co., Dum Dum and the Hindustan Conductors Ltd., Faridabad.

The Government of India has decided to start India's first two aluminium plants in the public sector at Mattur (Madras) and Rihang (U.P.).

6. SUGAR—India is the largest sugar producing country in the world. Indian industry employs about 1,50,000 workers. The country has nearly 4,000,000 acres under cane, which constitutes 35 p.c. of the world's total area under cane cultivation. The per-acre yield in India—14 to 15 tons, however, compares most unfavourably with the yields of 62 tons in Hawaii and 56 tons in Indonesia. The more important of cane-growing and sugar producing States in the country are Uttar Pradesh, Bihar, Punjab, Bombay, Andhra and Madras. The first two alone contribute more than 70 p.c. of the total production. Approximately 55 per cent of the total cane produced in India is utilised for the manufacture of Gur and Khandsari. Only 25 p.c.

goes to the mills for the manufacture of crystal sugar. Sugar mills on modern lines were first started in India about the year 1903. Yet the expansion of the industry began only after 1932 when it received protection. During the last two decades, both production and consumption of sugar have been progressively on the increase. From 9.31 lakh tons in 1937-38, production rose to 19.75 lakh tons in 1958 and consumption of sugar increased from 11.5 lakh tons to 19.9 lakh tons in the corresponding period. It is India's second largest industry, next only to textiles. The total capital invested in the industry is estimated to be Rs. 72 crores. Though the sugar industry is enjoying tariff protection since 1932, it is strange that after 34 years of such help the industry not only refuses to stand on its own legs but has not used its days of prosperity to take to more efficient methods of production or to lower the cost.

Indian sugar is of three forms—*jaggery*, *khandsari*, and *white sugar*. Of these, the simpliest is jaggery, being merely cane-juice boiled (to a temperature of 115°c) and solidified. Juice is boiled in open pans to solidify. Jaggery-making is an important cottage industry and 50 to 60 per cent of the cane produced goes into its making. Khandsari sugar is made through an indigenous process by the molasses being separated from sucrose. Its output is small, being about 11 lakhs of tones compared to about 1.6 million tones of white sugar and 7.8 million tons of jaggery. White sugar is directly produced in the factories in India. Only 25 per cent of the total cane produced goes into the making of white sugar.

The phenomenal growth of the industry led to the establishment of a net-work of sugar and cane research stations throughout the country. In the development of these research stations, the industry has a big hand with the funds raised from the industry in the shape of *cane cess, excise duty*, etc. The responsibility of guiding sugarcane research rests mainly on the Indian Central Sugarcane Committee which has been financing and guiding all sugarcane works in India. A chain of sugarcane research stations has been established in various states. The establishment in 1936 of the *Indian Institute of Sugar Technology at Kanpur* is another great contribution made by the Government of India in the cause of sugar industry. The Development Council for the sugar industry was set up by the Government of India under the *Industries (Development & Regulation) Act*, 1951 in 1956. The functions are : recommending targets of production, co-ordinating production programme, improving the quality and reducing the cost, etc.

The three main by-products of sugar industry—*bagasse, press-mud* and *molasses*—are used as raw materials by a number of industries. Bagasse is widely employed in the manufacture of paper pulp and card board. Considerable work is being done in respect of extraction of wax from press-mud. Similarly, molasses is used in the manufacture of aconitic acid, industrial and power alcohol, chemicals, tobacco curing, etc.

The area under sugar cultivation in India is larger than in any other country in the world. But the yield and quality of Indian

cane are at present among the lowest in the world. It is interesting to see in this connection that the *per capita* sugar consumption of the country (with *gur*) continues to be as low as 30 lbs. (*gur* accounting for 24 lb.) compared with 112 lb. in U.K., 114 lb. in Australia, 115 lb. in New Zealand, 128 lb. in Denmark and 11 lb. in Java.

Government Control—While there is no statutory control over the price of sugar, factories are obliged to keep 25 per cent of their production in reserve, which may be requisitioned by Government in times of need. Releases from factories are also regulated by Government with an eye to the supply and demand position in the country.

7 CYCLE INDUSTRY—Records indicate that first bicycle made its appearance in India in 1890 The indigenous industry was sponsored first in 1925 in Madras with German technical assistance but their effort proved abortive Between 1938 and 1941 three manufacturing concerns were started, namely India Cycle Manufacturing Co., Calcutta Hindustan Bicycle Manufacturing Co, Patna, and Hind Cycles, Bombay. In 1919 Government of India gave permission to three new units to establish manufacturing plants—(1) Sen-Raleigh Industries who secured technical collaboration with Raleigh Industries, (2) T. I Cycles of India with technical co-operation of Tube Investment Ltd, and Hercules Cycle & Motor Co, of England and (3) Atlas Cycle Industrie

Since then the development of cycle industry has been phenomenal. The output of bicycles in the small scale sector in the country exceeded the one lakh mark in 1957, There are 78 units in the small sector Of them 22 are in the Punjab, 14 in Delhi, 10 in West Bengal, 9 in Uttar Pradesh, 8 in Bombay, 4 in Madhya Pradesh and 2 in Madras, 5 in Rajasthan, 2 in Mysore 1 each in Andhra Pradesh and Orissa are to go into production soon There are 20 large-scale bicycle factories in the country which produced about 7.91 lakh bicycles in 1957 as against about 6 64 lakh bicycles in 1956 and 4.91 lakh bicycles in 1955 Of these big units Uttar Pradesh and Punjab have six each, West Bengal three, Delhi two, Bombay and Bihar one each. India can be said to be self-sufficient already in so far as the requirements of complete bicycles are concerned.

8 ALCOHOL INDUSTRY—Alcohol is available in three varieties. It can be used as drink ; secondly, it can be used for industrial purposes, such as in the manufacture of a number of chemicals ; thirdly, it can be used as a motor fuel for the production of mechanical power which is called power alcohol. About drinking alcohol we have many country produces, such as beer, toddy and certain variety of foreign liquors produced in distillaries which are about 70 in number. Industrial alcohol is valuable in the manufacture of chemicals like acetone, acetic acid, ether, chloroform, etc. It is also necessary as a solvent in the manufacture of fine chemicals, medical preparations and toilets, etc. It is produced from molasses, a by-product of sugar industry. The installed capacity of the manufacture of power alcohol has increased from a bare 6.2 million gallons in 1946 to well over 15 million gallons in 1957.

9. **PAPER AND PAPER BOARDS**—The first paper-mill was started in India a century ago by Dr. William Carey, the famous missionary. It did not make much headway. With the help of protective tariffs from 1925 to 1947, industry made steady growth though slow as yet to make the country self-sufficient even in paper and paperboards, not to speak of newsprint. The paper industry today is one of the major industries and has made considerable progress since second World War. The paper industry at present employs 26,000 people. The industry at present has a capacity of about 2,10,000 tons per year without taking into consideration the capacity of newsprint mill which is about 30,000 tons a year. The average *per capita* consumption comes to about 1.4 lb. compared to 150 lb. in U.K., 175 lb. in Canada, over 300 lb. in the U.S.A., 77 lb. in Germany, 4 lb. in Egypt and 85 lb. in Sweden. Though as yet insufficient quantity, India produces varieties of paper and boards including toilet paper, craft paper, mill boards, corrugated boards, grey boards, duplex and triplex boards, etc.

All the raw materials required by the industry, like bamboo, sabai grass, bagasse, rags, waste paper, miscellaneous fibres, etc., are available in the country. In recent years, only a small quantity of materials required for the production of specialised paper and viscose conversion is imported.

At present 20 units are engaged in the production of paper with the annual installed capacity of 210,100 tons.

The bulk of the production consists of the more common types of paper, *viz.*, printing and writing papers. Some quantities of wrapping and craft papers and of superior varieties like bond, azure laid, ledger, manifold and poster papers are also made.

At present the entire requirements of the country in respect of newsprint are being met from imports. However a beginning is being made in this country for the manufacture of newsprint. The Natoinal Newsprint Paper Mills Ltd., which was established in M.P., has gone into production in 1954.

10. **LEATHER, HIDES AND SKINS**—Leather industry in India ranks probably fourth in importance as an earner of foreign exchange. Indian Union produces annually 5.1 buffalo-hides, 16.1 million cow-hides, 22.9 million goat skins and 14.2 million sheep skins, besides a considerable quantity of reptile skins, such as those of crocodile, python, snake, lizard, etc., that make pretty looking fancy leathers. The value of the raw hides and skins produced annually is estimated to be about Rs. 40 crores. Indian leather industry fetches foreign exchange to the extent of Rs. 23 to 25 crores annually.

West Bengal and Madras are overwhelmingly the largest producers of cattle hides, Madras is the largest producer of buffalo hides and sheep skins, and U. P. the largest producer of goat skins followed by Bengal and Bihar.

By far the largest utilisation of leather is in the production of footwear. Footwear produced in this country may briefly be classified into two categories—(1) Western types, (2) Indian types. The footwear producers are classified into three classes—(a) machine-made section, (b) small-scale section, (c) cottage industry section.

The industry is organised mainly on a small scale, although there are a few big tanneries in Madras, Kanpur, Calcutta and Bombay. There are about 725 tanneries in the country, only 74 of which employ more than 50 workers. The industry is almost entirely in the private sector. The bulk of the requirements are manufactured by a large number of small scale and cottage units spread over the country, with chief centres at Agra, Kanpur, Bombay and Calcutta. There are at present twelve large scale units manufacturing footwear.

At the present moment England is the main buyer of India's half tanned leather known as East Indian kips.

To investigate the varied problems with which the Indian leather industry is now faced the Central Leather Research Institute has been established in Madras.

11. RAYON INDUSTRY—This industry has been started in India after the War in 1950. From 1950 by systematic development, India today is able to produce about 20 million pound of rayon yarn per year in popular variety of 150 and 120 denier. The first mill to be started in India was *Travancore Rayons Ltd.*, in 1950. In the following year 1951 *National Rayon Corporation* in Kalyan in Bombay came into existence followed by *Sosilk Ltd.*, Hyderabad and the *Gwalior Rayon Silk Manufacturing Co. Ltd.* Nagdah. Now a fifth unit is gradually coming into being. It is the *Century Rayon Ltd.* located in Kalyan Bombay. By way of assisting Indian rayon manufacturer, the Government have restricted the import of 150 denier and 120 denier rayon yarn (Denier is the weight of 9,000 metres of rayon yarn expressed in grams). Government has also removed the 15 p.c. import duty levied on certain varieties of imported rayon grade pulp.

12. PETROLEUM INDUSTRY—The Indian industry in oil is at present confined to a relatively small area in Assam. India raises not more than 8 p.c. of total consumption and imports about Rs. 50 crores worth of crude oil and derivatives a year. Mineral oil is mainly obtained from Digboi oil fields owned by Assam Oil Company, subsidiary to the Burmah Oil Co. It has a refinery at Digboi and a tin factory at Tinsukia. A new oil field has, however, been found at Naharkatiya in the Brahmaputra valley 29 miles to the west of Digboi and first flow of oil was released on 22nd Nov., 1954. This oil well at Naharkatiya has a depth of 10,697 ft.

The birth of oil refining industry in India goes back to 1899, when the Assam Oil Company built India's first oil refinery to refine crude oil from Assam oilfield. The industry has been given great impetus by the starting of three new refineries. Oil refineries by Burmah Shell, Stanvac and Caltex have been started in India. A shining silver city has now been built up at Trombay Island Bombay for the two refineries by Stanvac and Burmah Shell. Second refinery for Stanvac was completed in 1954. The fourth will be built at Visakhapatnam by Caltex. When all these refineries are in full production at the end of 1957, they will have a refinery yield of approximately 3.5 million tons of petrolium products a year. The refined products are of wide range—motor spirit kerosine, diesel oils, furnace oil, bitumen and wax. The new refineries will not produce aviation gasoline at all. The three refineries will when they are under full production, turn out over 90 per cent of India's petroleum requirements.

Recently in 1958 an agreement has been signed with the Rumanian People's Republic for setting up a refiniery in Assam. Rumania has agreed to offer a loan on long-term credit of Rs. 52,380,900. The plan of the refinery has two stages—(1) a refinery in Assam to process approximately 0.75 million tons per annum and a refinery in Bihar to process approximately two million tons per annum. The offers of collaboration for Bihar refinery is at present under consideration.

13. SILK INDUSTRY—The silk industry in India, which dates from ancient times, was at one time of very great importance but it was a decaying industry afterwards. The second World War proved grand incentive to revival. Sericulture industry occupies a prominent place among the village and small-scale industries in India and has an important place in the economy of the States of Madras, Mysore, West Bengal, Assam and Jammu and Kashmir. The other States which produce mulberry raw silk are East Punjab, Himachal Pradesh, Bombay, Uttar Pradesh, Madhya Bharat and Bihar.

The Indian silk industry is, for a large part, a cottage industry and only to a limited extent factory-centred.

Regarding raw silk production, India produces approximately 21 million lb. of mulberry raw silk valued between Rs. 65 and about Rs. 80 million a year and about one million lb. of non-mulberry silk *i.e.*, Tassar, Eri and Muga valued at Rs. 20 million. The five States which produce mulberry silk extensively are Bengal, Assam, Jammu & Kashmir, Mysore and Kollegal area of Madras. The States which produce fairly large quantities of non-mulberry silk are Assam, Bihar, Madhya Pradesh, Orissa and to some extent West Bengal. Bihar produces the largest quantity of Tassar silk in India.

Raw silk, whether mulberry or non-mulberry, is in itself a raw material. This raw material has to be thrown and twisted and silk yarn thus produced from raw silk is used for weaving silk textiles and other silk goods. Non-mulberry raw silk is used almost wholly for civilian fabrication purposes, whereas mulberry raw silk has vital importance for Defence Services of the country as dropping silk parachutes. A modern silk reeling factory is being established at Malda in West Bengal for producing high-grade raw silk.

The Government of India has been giving tariff protection to sericulture industry since 1930. For the improvement of sericulture and silk industry in India under Central control, a *Central Silk Board* has been established in 1949 under the *Central Silk Board Act LX of 1948.* The functions of the Board are—(*a*) undertaking, assisting or encouraging scientific, technological and economic research, (*b*) devising means for improved methods of mulberry cultivation, rearing, developing and distributing healthy silkworm seeds, reeling cocoons, improving the quality and production of raw silk, if necessary, by making it compulsory for all silk to be marketed only after the same has been tested and graded in properly equipped raw silk conditioning houses.

For effecting improvements in the industrial section proper, a *Development Council* has been set up in 1954 under the Industries and Regulation Act. The work of this Council lies in the sphere of introducing modern techniques of production.

14. WOOL AND WOOLLEN TEXTILES—Wool is one of India's principal sources of earning foreign exchange. On an average 25 million lb. of raw wool worth about Rs. 6.8 crores are exported annually. The indigenous consumption of raw wool is nearly 24 million lb. per year. Due to the variations of climate, the production of wool varies in different parts of India. The main areas of wool production are Jodhpur, Bikaner, Uttar Pradesh, Madras, Punjab, Hyderabad, Jaipur and Bihar. Indian wool is roughly classified under—(a) *Hill Wools* used in the manufacture of blankets, tweed, overcoatings and lower quality of woollen shawls; (b) *Plain Wools*, both of coarse-type and fine-type; coarse-type is used for low grade blankets and rugs and fine types for better class blankets, woollen broad cloths, tweeds and good grade carpets.

The main centre of woollen textile industry is in Bombay, after which there are large concentrations at Kanpur, Dhariwal, Amritsar, Jamnagar and Bangalore.

Seventy-five per cent of the industry is concentrated in the country. Seventy-five per cent of the industry is concentrated in the colder parts of India, *viz.*, U. P., Punjab, Raja than and Kashmir. This industry produces a wide range of products, namely, blankets, durrees, carpets, tweeds, shawls, lohis, coatings, pattus, scarfs, etc. There is also some production on a lesser scale of knitted goods, *e g*, socks, pullovers and jerseys. Certain of the goods manufactured on a cottage industry basis are of special quality and these have a considerable appeal abroad as well as in the home markets. Among these rank Kashmir shawls, carpets and namdas, carpets from Mirzapur and Amritsar and druggets from Mysore and Bellary. The Government of India have established a Development Council for Woollen Textiles for fostering wool industry in the country.

15. CARPETS—The main centres of production are Amritsar, Agra, Gwalior, and Jaipur for better class of carpets; Kashmir for good class carpets and namdas; Mirzapur, and Bhadohi for the cheaper qualities; and Mysore, Bellary, Bangalore and other places in the South for druggets. The industry's raw material requirements are met from local sources of supply. These goods find their outlet predominently in the overseas market.

16. CEMENT—The South India Industrialists Ltd., which was established in 1879 was the first to start cement production in India. The first production of this factory was in 1904. But it was closed down shortly after its inception and there was again a vacuum until the Indian Cement Co. Ltd., Porbandar started manufacturing cement just before the beginning of World War I. The war gave a fillip to the industry and by 1924, there were in India

some 10 cement factories with a total installed capacity of nearly 600,000 tons. In 1924 Tariff Board imposed a duty of Rs. 9 per ton on imports. The next stage in the development of the industry was the formation in 1930 of the Cement Marketing Company of India Ltd., which pooled the output of different cement concerns and initiated a quota system for sales. In 1936 four different controlling interests merged into one in the shape of the Associated Cement Companies Ltd. In 1937 the Dalmia Group came into existence with five cement companies. In 1941 the ACC and the Dalmia group combined to market their produce jointly through Cement Marketing Co. of India. The alliance lasted for seven years but in 1948, the groups broke away. The production of cement today is of the order of 6 million tons. Besides the 29 units already in operation in the country, 54 schemes comprising of 25 new units and 29 projects for the expansion of existing units have so far been approved by the Government.

17. POTTERY—is said to be the oldest of industries, and is also an ancient art in India. The industry in the modern sense, however, is of comparatively recent origin, although a pottery and stoneware works were established by Burn & Co., at Raniganj in 1860. There are now some 53 ceramic factories in India including those producing insulators, with a total capacity of over 70,000 tons per annum. They are located over a fairly wide area but capacity is mainly centred in Madhya Pradesh, West Bengal, Bombay, Madras and Mysore. Except for ball clay all other raw materials required are to be found in India.

18. RUBBER—The raw rubber producing industry in South India meets approximately 75 p.c. of the manufacturing demand. Having started with the establishment of a general rubber goods factory at Calcutta in 1920, the rubber manufacturing industry has developed in a remarkable way. The total number of rubber estates registered up to the end of 1957 was 37,293. They covered an area of 238,115,12 acres; during 1957 the production of raw rubber in India amounted to about 24,000 tons. The rubber manufacturing industry today represents a capital investment exceeding Rs. 13 crores and the producing industry over Rs. 20 crores. The production per acre in India is very low. It is only 300 lb. per acre today compared to Malaya's 500 lb. The tyre industry of India is the principal consumer of raw rubber, consuming almost 80 p.c. of India's production. The rubber which used to be an important export commodity, is now largely consumed within the country.

Indian Rubber Board has been constituted under the *Rubber (Production and Marketing) Act, 1947* for the development of the rubber industry in regard to production and marketing of rubber. It encourages research on rubber, supplies technical advice to rubber growers, improves marketing and collection of statistics and advises Government on all matters relating to development of rubber including imports and exports of rubber. The price of rubber produced in the country is fixed statutorily. The Board is financed by a cess levied on all rubbers produced in the country and fees levied for licences issued to dealers and manufacturers.

Rubber articles manufactured in India may be broadly classified under the following categories—(1) tyres and tubes, (2) rubber footwear, (3) rubber-covered cables, (4) proofed fabrics, (5) mechanical rubber goods, (6) medical rubber goods, (7) miscellaneous such as extrudeal and moulded articles and (8) latex and sponge rubber goods.

19. MATCH—Match manufacturing hardly existed in this country before World War I although the first factory, and with Indian management, was started at Ahmedabad as early as 1895. A considerable expansion of the industry was, however, made after the imposition in 1922 of a revenue duty on imports, which was converted in 1928 into a protective duty. The effect was so conspicuous that the foreign exporters ceased to export and a big Swedish match combine came to India and established many factories at Bareilly, Ambernath, Calcutta and Madras, under the name and style of the Western India Match Co. Ltd.

The organised sector consists of two units, the Western India Match Co. and the Assam Match Co. owning and operating a chain of eight factories spread throughout India including one in Andamans—all of which came under A class factories with a capacity of over 500 gross boxes per day. The working capital invested in the industry is about Rs. 6 crores of which foreign p.c. is about 30. There are about 234 smaller and cottage units which are classed B, C and D class factories. All India Khadi and Village Industries Board has been made responsible for the organisation and development of the cottage match industry.

20. GLASS AND GLASSWARE—The Indian glass industry may be divided into two categories—(1) Cottage industry making mainly glass bangles in small furnaces from glass blocks produced in factories, the main centre of which is Firozabad, U.P. (2) Modern factory industry.

With the exception of soda ash, sulphur and certain colouring materials, the raw materials of the industry, *i.e.*, dolomite, limestone, and saltpetre are all supplied from indigenous sources. The industry is widely dispersed and their distribution territorially is as follows—

There are at present 225 glass factories in India, including 93 bangle factories. The largest number of factories are in West Bengal (34), Bombay (32), and Uttar Pradesh (24), Madras (10). According to authoritative estimates, the total capital invested in this industry is nearly Rs. 4 crores. It provides employment to more than 20,000 workers. The total annual output of the industry is estimated to be Rs. 10 crores. It is equipped to produce tableware, lampware, bottles, sheet glass, scientific glass ware, neutral glass, ampules and bangles. The manufacture of thermos flasks, machine-made glass tubing, etc., has also begun.

21. PLYWOOD INDUSTRY—The plywood industry in India came into existence during the second World War, mainly to cater for the needs of the tea industry. There are nearly 70 factories—big and small—on the approved Govt. list. The majority of them are engaged in manufacturing teachests and the big units are

engaged in manufacturing various types of plywood. The total annual production of tea-chests is about 38 million sq. ft. in South India ; 30 million sq. ft. in Calcutta and 34 million sq. ft. in Assam.

22. SOAP—Industry had made remarkable progress even before the war and had built an export trade of its own. India is largely self-sufficient in raw materials except for caustic soda, soap colours, some perfumes. The consumption of soap in India is estimated at about ¾ lb. per head per annum, about 120,000 tons yearly which compares with 2½ lb. of Indonesia and nearly 3 lb. in Ceylon. The demands are met by local production. Imports are now negligible. The industry is divided into an organised section which produces about two-thirds of soap manufactured in India—and a very large number of cottage units producing the remaining one-third, which is mainly cold-process soap.

23. TEA—The tea industry is the foremost plantation industry in India. Tea ranks after jute as the second largest item in India's export trade. The industry part of it lies in cutting, drying and blending of the leaf and in that India specialises unlike China, to whom she is second in the world in production of black tea. It means that unlike the green tea, the black tea is processed in factory through courses of withering, fermentation and drying. It is well-known that the Northern India accounts for about 80 p.c. of the total Indian tea production averaging about 550 million lb. Assam producing over 70 p.c. of it. The tea plantations in the South India are distributed among four States—Madras, Travancore-Cochin, Mysore and Coorg. More than 75 per cent of the production is exported chiefly to the United Kingdom, United States, Canada, Australia and the Middle East countries.

There is a *Tea Board* under the Ministry of Commerce and Industry which administers the Tea Act, 1953, and is primarily concerned with measures for the development of tea industry in India, including the control of the cultivation and export of tea from this country and propaganda, both inside and outside India for increased consumption of tea. The Board is also responsible for the regulation and control of the sale of tea by auctions or otherwise, the registration and licensing of brokers and blenders and the quality control. It is financed by a cess collected on the export of tea. The important points about Indian tea are—(*a*) There are more than 6,500 tea gardens in India covering nearly 7,90,000 acres. Their total yearly production is over 630 million pound of tea. (*p*) Capital invested in Indian tea industry is estimated to be 118.06 crores in 1954 (excluding small holdings below 100 acres) of which Rs. 40.5 crores are Indian and Rs. 72.55 crores non-Indians. (c) People of India consume about 176 million pound of tea yearly, or at the rate of ½ lb. per head per annum. (*d*) Tea gardens of India alone employ well over one million workers—thus tea industry is the largest single employer of labour in India. (*e*) The Indian tea industry assists other industries like plywood, ceramics, coal, cement, fertilisers, tea machinery and transport. (*f*) India meets over 50 p.c. of the world demand for tea which is estimated to be over 1,200 million pound a year excluding China, Japan and the U.S.S.R.

24. **COFFEE**—is one of the major plantation industries of India. Practically, all coffee is grown in South India in the states of Kerala, Mysore, Madras and only a very small quantity being grown in Bihar and Assam. It is the most suitable crop for the hills in South India. Mysore is by far the largest producer of coffee amounting to about 47 per cent of the total area under coffee in the country. The State of Madras comes next with about 28 per cent of the area, while Coorg contributes nearly 22 per cent. India's coffee is claimed to be of the finest and the best quality. The industry has an acreage of about 2.50,000 and employs about 1,25,000 workers. Today the internal consumption of coffee stands at over 25,000 tons compared to 8,000 tons in 1941. The industry contributes to the central exchequer about Rs. 90 lakhs by way of excise duties and Rs. 11 lakhs in income tax. India's position in the world of coffee is, however, not important. The production of coffee in India is only 1.1 per cent of the total world production.

The main species of coffee that are grown in India are *Coffea Arabica* which is noted for its quality and *Coffea Robusta*, which has better resistance to pests and diseases, yields more and is cheaper to produce. The cultivation of *Liberica* coffee is negligible. The major part of the acreage under coffee, 73 p.c. approximately, is claimed by *Arabica* variety. The cultivation of *Robusta* variety is now on the increase.

Under the Indian Coffee Market Expansion Act, *Indian Coffee Board* has been constituted which is responsible, under the guidance and support of the Central Government, for evolving a system of regulated and co-operative marketing of coffee. The marketing of coffee is in the hands of the Indian Coffee Board. All coffee grown in India, excepting limited quantities required for domestic consumption of growers and seedling purposes, has to be made over to the Board.

25. AUTOMOBILE INDUSTRY—India's automobile industry is still in its infancy. It was only in 1947 that the Government of India took up the question of manufacture of automobiles in right earnest. Previously India was importing fully assembled cars and other vehicles.

The year 1954 was an important landmark in the development of motor industry in India. The Government of India took the bold decision of restricting the manufacture and assembling of automobiles to only a few recognised concerns who proved their *bona fide* by agreeing to a definite phased programme of development of their factors with the ultimate objective of reaching the stage of complete manufacture of all the important components. This resulted in the closing down of certain assembling plants.

The Government restricted import licences to those firms which submitted satisfactory programmes for the manufacture of vehicles. As a result, there are at present six approved manufacturers for automobiles in the country. They are, namely, Hindustan Motor, Calcutta ; Premier Automobiles, Bombay ; Mohindra and Mohindra. Bombay ; Asok Leyland, Madras ; Standard Motor Products, Madras ; and Tata Locomotive and Engineering Co., Bombay. Two automobile diesel engine manufacturers, Simpson & Co. and Automobile Products of India, were approved of in 1955. On the recommendation of the Tariff Board, the Government has given protection for a period of 10 years.

The total annual assembling capacity on a single shift basis of six manufacturers is about 50,000 vehicles, although the production was below the capacity, i.e., 22,153 vehicles in 1955.

26. TOBACCO—is one of the leading Indian cash crops like cotton, jute, sugarcane, etc. The tobacco industry occupies a significant place among the major industries of the country. It earns valuable foreign currency worth about Rs. 15 crores yearly, in addition to an income of Rs. 34 crores to the Indian Exchequer by way of excise duty.

The introduction of central excise on tobacco in 1943, the rapid rise in the production of high quality of cigarette tobacco in the country, the setting up of an Inspectorate at Guntur for the compulsory grading of certain varieties of tobacco in 1945, and the constitution of the Indian Central Tobacco Committee for promoting research and developmental work in 1945 have resulted in marked changes in the production and marketing of tobacco during the past decade.

India stands third in the world in the matter of tobacco production after United States and China.

Andhra and Bombay are the two most important tobacco-growing States, each having about 3 lakh acres under the crop. Other States which cultivate this crop are Madras, Bihar, West Bengal and U. P.

There are at present 17 cigarette factories working in the country with an annual turnover of about 26,000,000,000 cigarettees. The cigarette factories are located in Bombay (6), Andhra Pradesh (5), West Bengal (3), Mysore (1), Bihar (1) and U. P. (1). Bidi industry is mostly concentrated in Bombay, Madhya Pradesh, West Bengal and Bihar. Cigar and cheroot industries are confined mainly in the States of Andhra Pradesh, Madras and to a lesser extent in West Bengal, U. P., West Bengal and Punjab are the main centres of the hookah industry. The snuff industry is confined in Bombay, Andhra Pradesh and Madras.

Though Indian tobacco is exported to about 50 countries all over the world, exports represent only about 15 p.c. of the country's total tobacco production. The bulk of the Indian produce consists of such types as bidi, hookah, chewing tobacco, etc, which are consumed within the country itself. The quantity of Indian tobacco exported annually is in the neighbourhood of 100 million lb. The U. K. and China are the most important outlets for Indian tobacco.

27. LEMON GRASS INDUSTRY—India annually produces about 1200 tons of lemon grass oil, contributing nearly 80 p.c. to the world production. It earns Rs. 1.5 crores annually in foreign exchange. Lemon grass oil is obtained from certain specie of grass of the genus *simbopogon flexuous*. Lemon grass, so called because of the strong lemon colour its oil gives, is indigenous to India. Its cultivation is concentrated in Kerala where the warm tropical climate, intermittent

though not excessive rain, plenty of sunshine and the loose laterite soil are ideally suited to its growth. It is used as a basic raw material in the manufacture of aromatic chemicals. It is also used as a raw material for the synthesis of vitamin 'A' and in the preparation of insect repellent creams and pain balms. The total area under lemon grass in India is estimated to be 50,000 acres. There is a Lemon grass Research Station at Odakkali in Kerala.

28. COIR INDUSTRY—Coir means fibre obtained from the husk of the coconut fruit. India is the world's chief producer of coir and coir products, her yearly output being around 130,000 tons. More than the half of this output is exported, earning about 10 crores of rupees in foreign exchange. The coir industry which is exclusively South Indian, is concentrated in Kerala area and employs over six lakhs of workers. There are two principal types of coir fibre—the mat fibre and curied fibre. The bulk of the output consists of mat fibre. The coir industry is organised partly on cottage industry basis and partly in factories. The Government of India have sanctioned a scheme for the establishment of a Coir Research Institute near Allepey and a branch at Calcutta at a total cost of Rs. 20.28 lakhs.

A *Coir Board* has been established under the Coir Industry Act, 1953 which levys a customs duty not exceeding Re. 1 per cwt. on all coir fibre, coir yarn and coir products exported from India.

29. SPORTS GOODS—Sialkot (West Pakistan) was the main centre for the manufacture of sports goods in undivided India. With the partition of the country, the industrialists of Sialkot who came to India succeeded in re-establishing manufacturing centres in the northern region of the country. At present sports goods industry is predominetly concentrated in the northern region of the country' specially at Jullundur and Meerut. Other centres of the industry in the northern region are Delhi, Batala and Patiala (Punjab), Agra, Lucknow and Allahabad (U. P.), and Jammu & Kashmir. The raw materials for these goods are willow and mullberry wood which are produced in Kashmir and other parts of the country. The only other centres of the industry are: Calcutta, Bombay, Madras and Bhopal and these account for hardly 10 p.c. of the output. There are 258 manufacturing units in the northern region and 17 in other regions. The manufacture of sports goods is essentially a cottage industry. The capital investment required is not large. Following goods are being produced in different centres in India—(*a*) Footballs, volley balls, basket balls. (*b*) Cricket balls and hockey balls, (*c*) Badminton rackets, (*d*) Shuttle-cocks, (*e*) Nets, (*f*) Gut for badminton and tennis rackets, (*g*) Cricket bats, hockey-sticks. (*h*) Soft leather sports goods, (*i*) Sports and athletic wear (*j*) Other miscellaneous articles, such as billard cues, fishing rods, etc. The Sports Goods Export Promotion Council has been formed in 1958 for a concerted drive to boost India's exports of sports goods.

30. LAC INDUSTRY—It is the secretion of an insect which feeds on the sap of certain trees known as lac hosts. The main

lac-hosts in Bengal are *palas*, *ber* and *kusum*. The leading lac producing States in India are Bihar, Madhya Pradesh and west Bengal, portion of Bombay, Orissa and Assam. In West Bengal it is mainly grown in Murshidabad, Malda, Bankura and Purulia. The lac which is secreted from the glands of the lac insects is converted into sticklac which is crushed and mashed to from seedlac. This seedlac is processed into shellac, either by indigenous method or hydraulic pressure method or soviet process method. For the latter two processes, there are only two mechanised factories in Calcutta, while the processing of seedlac and shellac by the indegenous method is carried out in about 300 factories located at Purulia, Chotanagpur, Madhya Pradesh and Bombay. The distribution of production in recent years has been of the following order—Bihar 45%, Madhya Pradesh 27%, West Bengal 18%, Bombay 4%, Uttar Pradesh, Assam, Orissa and other States, about 1 to 2% each. The principal uses of the processed products of Seedlac and Shellac are in the following industries: gramophone records, varnishes and polishes, electrical industries, hats, printing and paper, sealingwax, cement and adhesives, etc. The research on the entomological and chemical problems of lac production is being carried out by the Indian Lac Research Institute, Namkum (Ranchi). India consumes only about eight per cent of the lac she produces. Ninety-two per cent of the lac produced is exported to the U.S.A., U.K. Germany, Russia, France, Japan and several other countries. Lac, therefore, helps to earn valuable foreign exchange. Calcutta is the main market for lac and practically all the sticklac, shellac, seedlac, kiri lac and molamma, etc., produced in the country come to Calcutta for sale.

31. VANASPATI INDUSTRY—was first introduced into India after World War I by imports from Europe. The first vanaspati factory was established in India in 1930. The Government helped the industry by giving it protection. Vanaspati is mainly made from groundnut oil and also from cotton seed oil. In 1944 the Government of India introduced legislation to control the industry by establishing an office of the Vegetable Oil Products Controller and also promulgated the Vegetable Oil Products Control Order. Under this regulation, the quality of production was standardised and new factories had to obtain permits before starting production. The prosperity of this industry can be ascertained from the fact that production capacity in 1956 was about 412,000 tons and the actual production was 300,000 tons.

The vanaspati industry is the second largest food-processing industry, next only to sugar industry. It is the largest of its kind in Asia.

INDEX OF INDUSTRIAL PRODUCTION ..

Base : 1951=100

	1956	1955	1959
General Index	133.0	122.1	112.9
Mining and Quarrying	115.0	111.7	107.2
Manufacturing ..	133.7	122.7	113.0

Food Excluding beverages ..	**134.1**	**121.9**	**101.7**
Textiles ..	**119.9**	**113.6**	**110.0**
Chemicals & Chemical products ..	**171.1**	**159.0**	**141.1**
Non-metallic mineral products ..	**153.1**	**134.8**	**125.5**
Basic metal industries ..	**117.1**	**112.6**	**114.4**
General & Elec. Engineering ..	**218.1**	**183.3**	**151.9**
Electricity generated ..	**164.1**	**131.2**	**127.0**

PRODUCTION OF SELECTED INDUSTRIES

	1954	1955	**1956**
Coal (tons 000) ..	36,771	38,213	**39,432**
Coffee (tons 000) ..	29,358	24,951	**34,440**
Tea (lakh lb.) ..	6,444	6,620	**6,672**
Salt (mds. 000) ..	73,910	81,076	**88,884**
Tobacco (No. in lakhs) ..	198,281	228,286	**263,028**
Textiles (yarn, lbs mln) ..	1,561	1,631	**1,671**
Textiles (cloth, yds. mln) ..	4,998	5,094	**5,307**
Jute manufactures (tons 000) ..	928	1,027	**1,093**
Footwear (western, pairs 000)	3,268	3,243	**3,620**
Footwear (Indegonous, pairs 000)	2,062	2,303	**2,911**
Rubber footwear (lakh pair) ..	312	349	**361**
Rubber Tyres (Nos. 000) ..	833	882	**938**
Cycle (Nos. 000) ..	5,226	5,748	**6,320**
Sulphuric acid (tons) ..	150,871	166,200	**165,216**
Caustic soda (tons) ..	29,307	34,253	**39,420**
Ammonium Sulphate (tons) ..	340,224	393,095	**388,992**
Cement (tons 000) ..	4,397	4,487	**4,928**
Pig iron & ferroalloys (tons 000)	1,962	1,895	**1,958**
Finished steel (tons 000) ..	1,243	1,260	**1,338**
Aluminium (tons) ..	4,886	7,225	**6,500**
Dry cells (lakhs) ..	1,487	1,610	**1,814**
Storage batteries (Nos. 000)	189	235	**314**
Electric Motors (H. P. 000)	188	252	**359**

COTTAGE & SMALL-SCALE INDUSTRIES

Pattern of Cottage Industries—The small scale and cottage industries in our country are in many cases functioning as independent and isolated units without the aid of any mechanical or electrical appliances. Most of them do not yet possess any adequate assistance either in production methods or in sales organisation. The inherited skill of the artisans appears to be the main factor that is now largely responsible in many cases to sustain these industries at the present moment.

Development of industries, more particularly cottage and small-scale industries, is the primary responsibility of the State Governments. According to item 52 of the Seventh Schedule of the Constitution, however, industries, the control of which by the Union is declared by Parliament by law to be expedient in public interest, are in the Union List. According to the Industrial Policy Resolution of the Government of India, dated April 6, 1948, the development of some large-scale industries a[illegible] be co-ord[illegible] ge and small-scale industries have been r[illegible] nised to b[illegible] e Central Government's responsibility. [illegible] Planning [illegible] is not only endor- and the above recognit[illegible] but has la d down the [illegible] phere of responsibility [illegible] the Central Government i[illegible] respect of cottage industries, stressed the importance of such industries in the agricultural economy of the country and recommended the setting up of an organisation by the Central Government for the implementation of the various programmes.

The Government of India, having recognised the need for the development of various small scale industries and cottage industries from the point of view of employment potential, have been some active step for rehabilitating them on a sound basis. The Government are assisting the handloom weaving industry by subsidising it from out of the cess levied on the production of mill cloth. The production of khadi is encouraged by subsidising it at double the rates applicable to handloom goods. The Government are also giving preference to the products of small-scale units in the matter of purchases required for various departments. They are also granting loans repayable in easy and convenient instalments to those engaged in cottage industries.

The cottage industries broadly include occupations, mainly allied to agriculture, handicrafts pursued by specialised artisans, processing industries carried on with human or animal power chiefly in cottages, industries operated in domestic units principally without the aid of power, and small sized enterprises making some use of power, but lying outside the purview of the Factories Act. The work of any organised small-scale industries is primarily the responsibility of State governments. To supplement their efforts for the improvement of cottage and small-scale industries, the Government have set up six organisations, namely, *All India Khadi and Village Industries Commission, All India Handicrafts Board, All India Handloom Board, Small-Scale Industries Board, the Coir Board and the Silk Board.*

The Organisation and Functions—The cottage and small scale industries are under the Ministry of Commerce and Industries which looks after their development and helps them in many ways. The following are some of the bodies which help to foster the growth of these industries—

Office of the Development Commissioner for Small-Scale Industries.—This office is responsible for development and fostering of small-scale industries; it also supervises, co-ordinates and controls the activities of the National Small Industries Corporation and the Regional Small Industries Services Institutes, Major Institutes, Branch Institutes and Extension Centres.

All-India Handloom Board was constituted by the Government in 1952. Its main functions are: The Board advises Government generally on the problems of the handloom industry, examines schemes for improvement and development of the industry and makes recommendations for financial assistance for such schemes. A cess of three pies per yard has been levied on all mill-made cloth consumed within the country, for development schemes of khadi and handlooms to be financed out of this source. The Board provides for various forms of aid being extended to handloom weavers.

The *Khadi and Village Industries Commission* was constituted under an Act passed in 1956. The Commission is responsible for preparing and organising programmes for the production and development of *khadi* and village industries, including training of personnel, manufacture and supply of equipment, supply of raw materials, marketing and research and study of the economic problems of different village industries. The Board also functions as a clearing house of information and experience relating to these industries.

The Commission has the following industries under its purview.—(*i*) khadi (including Ambar khadi (*ii*) Bee-keeping (*iii*) curing and tanning of hides and skins (*iv*) Cottage soap industry (*vii*) Ghani oil industry (*viii*) Manufacture of hand-made paper (*ix*) manufacture of cane gur and khandsari (*x*) Manufacture of palm-gur (*xi*) Processing of cereals and pulses (*xii*) Fibre (other than coir) (*xiii*) Blacksmithy and (*xiv*) Carpentry.

All-India Handicrafts Board: The All-India Handicrafts Board was set up in 1952 and reconstituted in 1957. The functions of the All-India Board are to advise Government generally on the problems of the handicrafts industry and in particular, to improve and develop production and promote sales in India and abroad. The Board also advises the Government of India as to the quantum of financial assistance (grant and loan) to be given to the various State Governments and recognised private institutions on the basis of specific schemes of improved technique, equipment, supply of raw material, enforcement of quality standard, training and research, publicity, promotion of sales, conducting of economic service. The Board has also directly undertaken the various activities, such as, setting up of pilot centres, establishment of design centres, organisation and participation in exhibition in India and abroad, research in handicraft industries, etc., etc. Some of the activities of the Handicrafts Board are—(1) There are at present 26 pilot centres under the Board. (2) There are four regional design centres at Delhi, Bombay, Calcutta and Bangalore. These centres are meant not only for the revival of traditional designs, but also for creation of new designs to satisfy aesthetic sense. (3) Marketing of handicrafts by means of inter-state trade in handicrafts, sales-*cum*-procurement depots in important towns. (4) Organisation of handicrafts week and handicraft exhibitions. (5) Export promotion. (6) Publicity. (7) Board is maintaining a museum at Delhi where articles of rare quality and craftsmanship are exhibited.

National Small Industries Corporation (*Private*) *Ltd.*, was established in 1955. The main functions of the Corporation are (1) procurement of Government contracts for execution by small-scale units (2) supply of machinery on hire-purchase basis to small industrial units (3) marketing assistance for small-scale industries products and (4) construction and management of the Industrial Estates at Okhla (New Delhi) and Allahabad. In order to decentralise the work relating to hire-purchase of machinery, marketing, etc., four subsidiary Corporations have been established, one each at Delhi, Calcutta, Bombay and Madras, Five separate Divisions of the Corporation are executing five specific tasks, such as,—(1) Government Purchase Division (2) Hire Purchase Division (3) Marketing Division (4) Industrial Estates Division (5) Project Division.

In order to decentralise the work relating to hire-purchase of machinery, marketing, etc., which was being done by the Corporation at Delhi, *Subsidiary Small Industries Corporations* have been started in February 1957 in Delhi, Bombay, Calcutta and Madras with an authorised capital of Rs. 10 lakhs each.

Small-Scale Industries Board was constituted on the 2nd November, 1954 in accordance with the recommendations of the Ford Foundation Industrial Planning Team, to frame and recommend programmes generally for the development of small-scale industries in India.

Central Silk Board was constituted in 1949 for the promotion and development of sericulture and the silk industry *Central Sericultural Research Station* has been established at Berhampore (West Bengal) in 1943. It conducts experiments and research in the various branches of the sericulture industry and has a sub-station at Kalimpong.

Coir Board—Under the Coir Industry Act of 1953 a Coir Board has been established with its headquarters at Ernakulam in Kerala State.

Industrial Estates—Second Five-Year Plan emphasises the need of industrial estates in different parts of the country. It is planned to construct 103 industrial estates. Nearly 200 small-scale industries have been provided with factory accomodation in these industrial estates.

The Government of India have set up an organisation known as *Indian Handicrafts Development Corporation (Private) Ltd.* It will organise production of handicrafts on a commercial basis to ensure prompt supply against orders, particularly in regard to exports. The Corporation will also establish sales depots and selling agencies.

SPECIAL COTTAGE INDUSTRY PRODUCTS OF INDIA

Bidri work—'Bidri' is so called after the ancient of Bidar, the place of origin. The basic material employed in the manufacture is an alloy consisting mostly of zinc and copper. Pure gold or silver in sheets or wires is hammered and inlaid into carves of inlaid design. The alloy which is of leaden colour turns into jet black and forms a contrasting background to the silver or gold design. Articles of modern use, such as cigar and cigarette boxes and cases, ash trays, vases, powder boxes, trinket boxes, fruit bowls, etc., are being manufactured.

Phulkari—is the general name given to the famous Punjabi shawls known as Bagh and Phulkari. Phulkari means flowercraft and Bagh a garden. The embroidery is done with soft untwisted silk called pat, on plain coarse khaddar. The motifs and designs are both rich, colourful and attractive with ends or Pallas of exquisite workmanship. The whole sheet of khaddar gets covered like a garden in full bloom and presents a gay and floral appearance.

Filigree—Filigree work is an indigenous art of Orissa State. It is now prevalent in Orissa, Hyderabad, Kashmir and West Bengal. Pure silver wire of different shapes and gauges are used for filigree work. Charcoal and silver solder are utilised for soldering the filigree work. The types of products are—ash trays, bangles, betel boxes, buttons, caskets, cigarette boxes, flower vases, necklaces, ear tops, powder boxes, etc.

Horn articles—The horn industry, like the filigree industry, has been an indigenous cottage industry of Orissa. It is now largely found in Kerala, Orissa, Bombay, Andhra Pradesh and West Bengal. The main raw material is buffalo horn, and horns of deer and bisons are also used for some special types.

Ivory work—Ivory carving is an outstanding handicraft in many states of India, chief of them being Kerala, Hyderabad, Mysore, Madras, West Bengal, Delhi and Rajasthan.

Nirmal work—The toy industry of Nirmal is peculiar to the Andhra Pradesh (Hyderabad). These toys are made of 'burgu' and 'runki' wood which are very light in weight and easily workable. The products consist of vegetable and fruit trays, bangles, lamp stands, cigar and cigarette boxes, ladies shoe hills, etc. The industry is carried on in the small village of Nirmal in Adilabad district, Hyderabad.

Silk Products—Murshidabad produces several varieties of silk of the softest texture. Mysore silk saries are in vivid colours, the beauty of which is enhanced by their small edging of gold and silver;

the thicker Kashmir silk sari has edges worked in coloured silk. The *tasur* from Sambalpur, *mogia* silks from Ahmedabad, the silks of Surat and silk satinette from Kathiawar, the *patola* silk of Baroda, all vie with other in texture and colour and durability.

Metal Art Wares—The polished brass with engraving or enamelling of Jaipur, Kashmir, Moradabad and Banaras ; the brass, copper and bronze cast images and wrought pieces of Madura and Tanjore with edged or encrusted mythological motiff are only some of the numerous instances of the distinguished art of the country in this field. The other articles manufactured are—flower vases, candle sticks, decanters, finger bowls, tumblers, fruit dishes, powder pots, etc., etc.

Handloom Industry—There are over 28 lakhs of looms in India. Each loom provides employment to about three persons at various stages. About 75 lakhs of people are thus employed in this industry. Handlooms yearly produce more than 1,500 million yards—roughly one-third of the total mill production. Certain varieties of cloth have been reserved exclusively for the handloom sector, such as coloured sarees, dhoties, towels, bed sheets, etc.; over 5,000 co-operative societies have so far been formed with a total of 10 lakh looms. Handloom exports earn about Rs. 8 crores in foreign currency every year. A Handloom Fabrics Marketing Society has been established to promote inter-State and export marketing for handloom fabrics. The handloom textile industry is wide-spread in India. It consists of cotton wools, wool and silk spinning and weaving and dyeing and printing, such as famous cotton *sarees* and *dhoties* of Madras, Madhya Bharat and West Bengal ; famous furnishing fabrics made at Orissa and Bihar, gorgeous brocades of Banaras and Hyderabad, scarves of Banaras, famous prints of Murshidabad, Furrukhabad, Jaipur and Bombay, Batik of Santiniketan ; Kalmakari (pen work) of Masulipatam, tie & dye of Jaipur, Mysore, West Bengal and Kashmir silk sarees and dress material ; woollen fabrics of Kashmir, and carpets, rugs and druggets of Mirzapur, Bhadohi, Ellore, Kashmir, Bangalore and Jaipur.

STATE COTTAGE INDUSTRIES

Ajmer—The most important cottage industry of this place is handloom weaving. Other industries are leather goods, toys, soaps, furniture, buttons and moodhas.

Assam—Sericulture and handloom weaving industries are the most important industries in this State. These industries are mostly pursued by women. Assam is noted for her non-mulberry silk, *viz.*, *Eri* and *Muga* from time immemorial. Muga is a light-brown silk, used in summer and winter. The total production of Muga raw silk in Assam is estimated to be nearly 180,000 lb. The bulk of this production of muga raw silk is done in a village named Sualkuchi, situated on the northern bank of the Brahmaputra. Muga silk is produced by a kind of caterpiller which feeds on the leaves of *som* and *sualu* trees. Eri or Endi is a rough cream coloured silk used in winter, as it is warm. The worms feed on eri (castor) seeds. Among the other cottage industries are rice pounding, ivory, bamboo and canework, bell-metal work and bee-keeping.

Bihar—The cottage industries in this State in their order of importance are handloom weaving, steel goods and cutlery, tanning and leather manufacture, pottery, jewellery, non-ferrous metal wares. This is the only State which produces shell buttons from the mother-of-pearl.

Bombay—Handloom weaving industry is the most important cottage industry of Bombay. There are about two lakh handlooms maintained in the 27 districts of the State. The other industries in the order of their importance are tanning and leather, village oil, hand-made paper, ivory horn and wood-carving, non-ferrous metal wares and cane works. The important industry of Kutch is handloom weaving The other industries are cutlery, jewellery, non-ferrous metal ware, tanning and match.

Saurashtra is famous for tanning and leather goods industry, brass utensils, iron and steel articles. In addition to these, weaving of cotton and wool is an important industry.

Coorg—There is only one cottage industry in this State, namely, bee-keeping.

Delhi—Among the important cottage industries of Delhi are leather industries, zari and zardozi, ivory carving, cane and bamboo basket making, calico printing, plastic goods, paper products, brass wares, wood work, artificial limb making, sola hats, imitation jewellery, gold and silver jewellery, lock making and tin containers, button making, soap making, tazi-dermy, thread ball, gas mantle, wooden scales, surgical goods, sports goods and metal works.

Himachal Pradesh—The only cottage industries reported from this State are cotton hand-spinning and handloom weaving and woollen hand-spinning and hand-weaving. Sericulture industry exists in all districts.

Andhra Pradesh—The important cottage industries of Andhra Pradesh are as follows— (1) *Toys* are made in different places in Andhra Pradesh, such as Kondapalli, Nirmal, Nokkapalli, and Tirupathi (2) *Carpets* of Warangal and Eluru are really the pride of Andhra Pradesh. They are woven from silk, cotton or woollen yard (3) the art of *fabric printing* in Andhra Pradesh is unique in character (4). The artistic *mat weaving industry* is carried on in Mahabubnagar district where Thunga grass is grown abundently. (5) *Bedriware* of Hyderabad is an important cottage industry of Andhra Pradesh. The basic material is an alloy of zinc with small proportions of other non-ferrous metals. (6) *Silver filigree* work flurishes in Karimnagar district, which shows exceedingly delicate workmanship of local goldsmiths. (7) *Himroo fabrics* are an extra wett figuring fabric having a solid coloured ground of satin or twill decorated with figurative motifs. Himroo cloth makes very attractive ladies' coats, tunics, blouses, shawls, etc. (5) Lace-industry is carried on extensively in Narsapur and Palakole. (0) .*Glass bangles and beads* industry is very flourishing in Andhra Pradesh. This is done in Papanaidupet in the Chattoor district. (10) Ivory carving is an another important handicraft.

Jammu & Kashmir—The cottage textile industry covering mainly wool and silk is an important industry. In the textile industry, the products worth mentioning are tweeds, *gabba*, *pattu*, pile carpet, *namdas* and *shawls* (*pashmina & toosh*). The other industries in the State are furniture made of walnut, cane and willow works, wood carving, papier-mache work, jewellery and stone polishing.

Madhya Bharat—The most important cottage industry in the State is the handloom weaving industry. The products well-known even outside the State are the *chanderi* and *maheswari sarees*. The village of Chanderi, 24 miles from Mungaoli in Madhya Pradesh, is for long been the reputed production centre of superfine saries whose borders, paloos and traditional butties have won the admiration of fashionable women all over the world. The other industries are hosiery, wool weaving, dyeing and printing, sports goods, steel safes, leather goods and food processing.

Madhya Pradesh—Handloom is the most important industry in the State. The other industries of some importance are tanning and leather work, confectionery fruit canning brass and copper utensils and oil and soap. The hand-weaving industry is the only important cottage industry of Bhopal.

Madras—This is the most important handloom weaving State in the country with 841,140 handlooms and 1,395 powerlooms. The most noted of its handloom cotton products are *sarees*, *dhoties*, towels, sheetings and coatings and shirtings. The other industries in order of merit are hosiery, carpets and druggets, blankets and *cumblies*, printing, tanning and leather goods, food processing, non-ferrous metal ware, steel goods, matches, toys, etc.

Manipur—Handloom weaving industry is the most important cottage industry.

Mysore—is one of the leading States in the field of cottage industries. Handloom industry is the leading industry with 35,000 handlooms and 1,042 powerlooms. The most famous of its textile products are *silk sarees*, blankets, carpets, and druggets and silk in running length. The other industries in the order of their importance are sericulture, art products including carving and inlay in ivory, sandal wood, rose wood and metal, glass bangles, incense and perfumery, leather goods, steel goods, soap, wooden, clay and lacquered toys and food processing.

Orissa—Handloom industry is a noted industry of Orissa. The other noted industries are silver filigree, ivory, horn and soap stone, tanning and leather goods and wooden utensils.

Punjab—The important industry of the state is handloom industry. The most noted textile products are furnishing fabrics, blankets and hosiery. The other important industries are furniture, wood carving, jewellery, food processing, sports goods, non-ferrous metal ware and a variety of steel and engineering goods, leather goods, bangles and hosiery industry. Carpet making is also a flourishing industry of Punjab.

Rajasthan—The handloom industry is of course the most important of all. Its noted textile products are *printed sarees* and scarves, tie and dye carpets and *niwar*. Rajasthan is the biggest wool-producing state of India; Jodhpur and Jaipur are famous for the manufacture of embroidered shoes. Jaipur produces the best type of brass work in the whole of India. The other industries are art products, papier-mache, marble stone and ivory work, leather goods and toys.

Kerala—Great stride has been made with regard to some cotton industries, such as, handloom textiles, coir and coir mattings, grass and screw pine mats, ivory, wool products, etc.

Tripura—Besides handloom textiles, the other industries are cane and bamboo work, coir matting, oil pressing, carpentry, smithy, pottery, *bidi* making.

Uttar Pradesh—*Silk industry* is engaged in the production of gold and silver thread broacades, silk sarees and scarves. Mirzapur *carpets* are produced in wide and varied designs. *Dyeing and cloth-printing* is a flourishing industry in Lucknow and Furrukhabad. Moradabad is famous for *ornamental brassware*. The manufacture of *glass bangles*, which is one of the important cottage industries in this State, is made at Ferozabad. Khurja *glazed pottery* is now known all over India. Other important industry is *fibre industry*, such as making of baskets, chicks and cane furniture. *Gur* making is the biggest cottage industry in U. P. Other cottage industries of U. P. are zari and embroidery of Agra, Pakki Kelai of Moradabad, blankets of Nazimdabad and Almora, sports goods of Meerut and gold threads of Varanasi.

West Bengal—There are 97,151 handlooms and 1,198 power-looms in the State. The most famous textile products are silk and cotton *sarees* and *dhoties*. The other industries are jute and wool weaving, sericulture, tanning and leather goods, brass and bell metal utensils, steel and engineering goods, sports goods, ceramics, cutlery, furniture, art products including horn, ivory and wood. Besides these, there has been considerable development in hand-made paper, palm gur, mat, bee-keeping, etc.

BHOODAN MOVEMENT

The Bhoodan movement, started in 1951, is a unique movement of great social significance in India. It seeks to bring about what we may call a peaceful agrarian revolution in the country. The movement consists in the collection of land from land-owners as 'gifts', and distribution to the landless. India's efforts to solve her gigantic land problems through a peaceful revolution are now engaging world-wide attention.

The idea of this voluntary donation of land to landless peasants was initiated by Acharya Vinoba Bhave, a sincere disciple of Mahatma Gandhi, during one of his visits to the Hyderabad State on 18th April, 1951, where he had gone to attend a conference of Gandhian workers. On April 18, 1951 at Telangana, a district of Hyderabad which was a centre of a strong communist-sponsored movement for the redistribution of land, some landless workers came to him and complained that though they were willing to work, but they had no land to work on. An idea suddenly flashed in the mind of Vinoba Bhave who at once asked the assembled people whether any one among them would be willing to donate land to the poor landless people. A man sitting silently among the assembled people at once stood up and said that he had been looking for an opportunity to give away one-half of his 200 acres of land all these years. So, this little incident gave start to this agrarian revolution in India.

Describing the aims of his movements Vinoba Bhave says, "In a just and equitable order of society, land must belong to all. That is why we do not beg for gifts but demand a share to which the poor are rightly entitled. The main objective is to 'propagate right thought,' by which social and economic maladjustments can be corrected without serious conflicts." Vinoba Bhave has also said, "this Bhoodan Yajna is an application of non-violence, an experiment in transformation of life itself. I am only a tool in His hands who is the Lord of all ages, like even those who give and those who will receive the gifts. It is a phenomenon inspired by God."

From now on Vinoba Bhave started his nation-wide campaign with the aim of distributing 50,000,000 acres, *i.e.*, one sixth of India's cultivatable land among country's 10,000,000 landless families. He undertook a propaganda tour on foot for this purpose, holding prayer meetings where he appealed for gifts of land.

Under the scheme which was intended to apply the Gandhian principle of non-violance to social and economic problems—a target was fixed for a district and when this had been reached, the land was distributed among the landless families (the minimum amount given being five acres of dry or one acre of wet land) on condition that the recipients had no other means of livelihood and were prepared to cultivate it with their own hands. Distribution took place at village meetings at which villagers decided whose need was the greatest : if disagreement arose or insufficient land had been allocated, lots were drawn. The land was given in trusteeship, on the understanding that it would not be sold, mortgaged, rented or left fallows, and that, if misused, it should return to the 'pool' for redistribution. According to the plan, 'Harijans' will be given one-third of the entire land collected. In the redistribution of land, above conditions should be fulfilled. The distribution takes place at public meetings in the villages.

An appeal was also launched for money to provide agricultural implements for beneficiaries of the scheme. A gift of Rs. 1, 200,000 from the Gandhi Memorial Fund for this purpose was announced on July 9, 1955. Several States have rendered active assistance to their movement In order to fecilitate the donation of lands to Bhoodan and the redistribution of such lands, necessary legislation has been enacted in Bombay, Bihar, Madhya Pradesh, Orissa, Punjab, Rajasthan, Uttar Pradesh, Delhi and Himachal Pradesh. Upto December 1957, 43.82 lakh acres were donated to the Bhoodan movement and the area distributed was about 6.54 lakhs.

Along with this land gift movement, Vinoba Bhave has started other movements to enlarge the concept of Bhoodan movement. These movements are *Sampattidan* (wealth gift), *Shramdan* (labour gift), *Buddhidan* (intelligence-gift), *Jivandan* (gift of one's whole life to the cause) and *Gramdan* (gift of entire land of the village).

Gramdan - or the gift of a whole village in the latest phase of Vinoba Bhave's Bhoodan movement The *gramdan* movement opens up now possibilities of social reconstruction and economic uplift of building up a now social order based on equality and co-operation. In a gramdan village individual ownership of land ceases and the whole village becomes a unit The Five-Year Plan also recognises that the practical success which is achieved in the development of *gramdan* villages will have great significance to co-operative village development.

The first village to come under gramdan is Mangroth in Uttar Pradesh which is an example of the success of the movement. In Bihar *gramdan* villages have established their own grain centres, have even pooled their debts and shared expenses in social ceremonies like marriage. More than than 3,000 villages in twelve States had been offered to the *gramdan* movement by the end of August 1957, Orissa headed the list with 1,847 villages, Kerala, Bombay and Madras followed with 301,237 and 223 villages respectively. The essential features of the movement is the non-violent technique adopted and its voluntary character. The Central Government were to provide a sum of Rs. 11.92 lakhs during 1956-57 and Rs. 10 lakh during 1957-58 towards meeting the cost of this gramdan movement.

LAND GIFTS FROM STATES

	Area of land donated (acres)	*Area of land distributed (acres)*		*Area of land donated (acres)*	*Area of land distributed (acres)*
Assam	23,196	225	Gujarat	47,486	11,527
Andhra	2,41,950	82,317	Nag Vidarbha	85,265	38,220
Orissa	3,84,589	1,11,361	Maharastra	64,210	10,561
Uttar Pradesh	5,87,615	77,674	Saurastra	31,237	8,185
Kerala	29,021	2,126	West Bengal	12,681	3,463
Tamilnad	70,823	5,349	M. P.	1,78,816	49,881
Delhi	396	157	Mysore	14,164	1,152
Punjab, Pepsu	19,929	2,653	Himachal Pradesh	1,568	21
Bihar	21,68,857	2,13,150	Rajasthan	4,20,068	35,846
				43,81,871	6,53,868

GRAMDHAM

	No. of Villages		*No. of Villages*		*No. of Villages*
Assam	77	Madras	258	Rajasthan	14
Andhra	270	M. P.	64	Uttar Pradesh	6
Bihar	97	Mysore	15	West Bengal	8
Bombay	340	Orissa	1,933		
Kerala	451				3,543

INDIA'S COMMERCE

PATTERN OF INDIAN TRADE—Throughout the British period, India normally had a favourable balance of trade. The preponderance of manufactured articles in the country's imports and that of agricultural commodities and raw materials in its exports were a feature of India's foreign trade. Till 1939, before the outbreak of World War II, India was mostly an importer of manufactured goods and exporter of agricultural commodities and raw materials. The value of our exports exceeded the volume of our imports, so that we had a favourable balance of trade.

Notable changes have taken place in respect of all these characteristics of our foreign trade as a result of the industrial development of the country during and after war. Before World War II, we were mostly an exporter of minerals and agricultural commodities, we are now an important importer of foodgrains and industrial raw materials. Before 1939, 75 p.c. of our imports comprised manufactured articles in the form of consumer goods, at present the bulk of our imports consists of machinery, metals, chemicals, oilman's stores and industrial raw materials.

Before and during World War II, our foreign trade generally showed a favourable balance of trade ; in recent years, our exports have lagged far behind our imports, thus causing a heavy drain on foreign exchange reserves built up during the war.

THE GOVERNMENT FUNCTIONS AND ORGANISATION—The Ministry of Commerce and Industry is concerned with the work connected with foreign trade, control over imports and exports and export promotion, negotiation of trade treaties, determination of tariffs, commercial representation in overseas countries and participation in international trade fairs and exhibitions and it is also concerned with inter-trade organisations. While the Ministry frames the overall commercial and industrial policies, the executive work connected with their implementation, is the responsibility of the several attached organisations under the Ministry, which are as under—

(1) **Office of the Chief Controller of Imports and Exports**—It is responsible for the execution of the Government's policies relating to import and export control. Branch offices of this organisation are functioning in Amritsar, Bombay, Calcutta, Cochin, Madras, New Delhi, Pondicherry, Rajkot, Shillong and Visakhapatnam.

(2) **Office of the Economic Adviser to the Government of India**—The Economic Adviser renders technical advice to the Ministry on all economic matters. He collects, studies and interprets various economic information having bearing on India's foreign trade and commerce.

(3) **Export Advisory Council**—is composed of 20 non-official members, representing Chambers of Commerce, Trade Associations, industrial interests and exporters, to discuss the difficulties

in regard to goods, to recommend methods of expanding exports of products of Indian manufacturing industry, and to recommend the best means of expanding the aggregate exports of staple commodities.

(4) **Import Advisory Council**—is primarily responsible for advising the Government of India in all matters of general policy relating to import control.

(5) **Port Committees at Bombay, Calcutta and Madras**—These are advisory committees which advise the local Export Trade Controllers on all major problems connected with the export trade. They are considered as branches of the Export Advisory Council.

EFFORTS TO INCREASE INDIA'S FOREIGN TRADE—In view of the critical unfavourable balance of trade and gradual deterioration of foreign exchange position, the Government of India are making all-out efforts to increase India's export trade. The methods adopted for export promotion are as follows—

1. *Directorate of Export Promotion*—This Directorate assists exporters in moving their export consignments in full wagon loads from places in the interior to the ports of shipment.

2. *Export Promotion Advisory Committees* have been set up at port towns. These Committees consist of experienced businessmen. The Committees undertake the study of commodities exported from the ports within the jurisdiction of their respective zones and endeavour to explore the export potentialities of commodities produced in the hinterland, which are not yet making an adequate contribution to the country's foreign exchange earnings.

3. *Exports Risks Insurance Corporation* was established in September 1957, with headquarters at Bombay. The Corporation offers facilities to the exporters to insure risks arising in the course of export trade, which are not normally covered by commercial insurance companies.

4. *Exhibitions and Fairs*—The Directorate of Exhibitions gives visual publicity to Indian products in an effort to evoke consumer interest in them. India participates on a substantial scale in a number of exhibitions and fairs held abroad.

5. *Show Rooms and Trade Centres*—have been established in different places in foreign countries to provide facilities to Indian traders to bring their wares to the notice of importers in foreign countries.

(6) *Trade Agreements*—Bilateral trade agreements are being concluded with many foreign countries. The main objective of these agreements is to reduce the strain on country's limited supplies of foreign exchange by securing essential goods from non-dollar areas in return for India's staple exports. These trade agreements are of two types, namely, trade agreements with quantitative commitments for export and import of goods and general trade arrangements through exchange of letters of commercial goodwill. So far Trade Agreements have been concluded with 24 countries —Afganistan, Austria, Bulgaria, Burma, Ceylon, Chile, China, Czechoslovakia, Egypt, Finland, East and West Germany, Hungary, Indonesia, Iraq, Italy, Norway, Pakistan, Poland, Rumania, Sweden, Soviet Union, North Vietnam and Yugoslavia.

(7) *Trade Delegations*—are sent to different countries for exploring the possibilities of the expansion of India's trade with those countries and for tho establishment of closer economic and commercial ties.

(8) *Commercial Services*—India has Indian commercial representation at twenty-two centres. In the countries where trade representatives have not so far been appointed, Indian trade interests are being looked after by the Indian Ambassadors, Consul-Generals, etc. India's trade representatives answer trade enquiries, actively encourage the establishment of trade relations between genuine firms on either side, publicise Indian products by various methods.

(9) *General Agreement on Tariffs and Trade (GATT)*—India is one of the contracting parties of the GATT. This has helped in various ways to facilitate the expansion of foreign trade in different countries.

(10) *State Trading Corporation*—The Government of India have set up on May 18, 1956, the State Trading Corporation as a private limited company. It has an authorised capital of Rs. one crore, divided into 100,000, shares of Rs. 100 each. The subscribed capital will be Rs. 5 lakhs. All shares are owned by Government of India. The objects of the Corporation are to organise and effect exports from and imports into India of all such goods and commodities as the company may from time to time determine. The principal endeavour of the Corporation has been to diversify and supplement the country's foreign trade. New markets have been developed for export and fresh sources for importing the country's essential requirements have been tapped.

Besides the organisation at Headquarters, it has regional offices at Calcutta, Madras, Bombay and Visakhapatnam.

(11) *Export Promotion Councils*—have been set up for different industries. There are now altogether eleven Export Promotion Councils, such as, for shellac, sports goods, chemicals, etc. Apart from the routine items of work, the following activities of an important character bear special mention—(a) *Cotton Textiles Export Promotion Council* (b) *Silk and Rayon Textiles Promotion Council* (c) *Engineering Export Promotion Council* (d) *Plastics Export Promotion Council.*

IMPORT AND EXPORT CONTROLS—Import and Export controls were first introduced in May 1940 as a war measure under the Defence of India Rules. Although the latter expired in September 1946, controls were continued for one year under an emergency act. In 1947, Import and Export (Control) Act was passed, providing new legal basis for Import and Export Controls. The legislation though conceived as a temporary measure, is being renewed from time to time and unless further extended will be in force till March 31, 1960.

Import Control Policy—The basic objective of Indian import controls is to allocate India's limited supply of foreign exchange among its most essential import needs. In general, capital goods, capital repairs, and raw materials required by industry are given the highest priority in granting of import licenses. Licenses are granted for only a few types of consumer goods and then only for limited quantities. The Government, nevertheless, has indicated that it intends to continue to permit the import of a small amount of luxury goods, where these items are a profitable source of Government revenue or where their import is provided for by a bilateral agreement. Import licenses may be issued more freely for particular goods if they are in such short supply in India that their prices are likely to rise rapidly. Import licenses is issued less freely for goods which compete with products of an Indian industry that the Government is seeking to protect. Import control also involves directional controls, in that imports from soft-currency areas are more freely licensed than from dollar and other hard currency areas. Licenses to import from dollar areas are generally issued only when the product is not obtainable on comparable terms from soft-currency areas.

For the present, in order to conserve foreign exchange, import quotas of many items are being drastically reduced. Having regard to the deterioration in the foreign exchange position, the restrictive trends in import policy have been intensified. The Government's firm resolve to prune heavily the import from abroad was announced in June 1957. On 29th June, 1957, the Government of India announced severe import restrictions to meet the country's foreign exchange difficulties. The main features of the policy were the complete suspension of granting of licences to established importers and abolition of the systems of O. G. L. except for a few items of border trade between East Pakistan and India. This policy is being rigorously followed.

India's import policy is revised twice a year to establish new quotas for the various licenses to be issued during the following 6 months.

Licenses are of two types : (1) *open general licenses* and (2) *individual licenses.* The open general license takes the form of an announcement by the India Government granting general permission to import particular commodities into India from specified countries. Individual licenses specify the importer, the value and/or quantity of the designated commodity and the country or currency area of source. They are ordinarily not transferable.

Export Control Policy—India began to liberalise her controls over exports after the end of World War II in 1944. The principal purpose since that time has been primarily to allocate India's limited exports in such a way as to restore the position of Indian exports in foreign markets, particularly in the hard-currency areas, to the maximum extent possible without creating serious shortages in India. The main objectives of the export control are the following—(1) to encourage exports consistent with internal requirements, in such a manner as to further the economic development of the country, (2) to canalise exports to yield sufficient dollar and other hard currencies, (3) to encourage exports of processed goods, (4) to conserve supplies for internal consumption of those commodities which are in serious shortage, (5) to control the rate of exploitation of India's mineral resources.

The present export policy may be described in the following way—reduction of export duty and other tax reliefs on certain goods like tea, curtailment of domestic consumption of certain commodities like groundnut oil, exploration of the possibility of negotiating trade agreements on the line of Indo-Egyptian Trade Agreement, etc.

INDIAN EXCHANGE CONTROL—Foreign exchange has been under control in India since 1939. This exchange control gives the Government wide powers to control transactions in foreign exchange and securities and in the import or export of bullion or currency. Transactions between India and all foreign countries are subject to exchange regulations, although regulations vary somewhat as applied to different countries. The object of the Indian Exchange Control is to secure a balance in international payments account. There are restrictions on imports but remittances are freely allowed against permitted imports. In fact, a specific or a general licence to import any goods carries with it the right to remit funds so that merchants in foreign countries exporting the Indian goods within the licensed category are sure of getting prompt payment. The regulations also allow remittance of profits, interest, dividends, savings of foreign companies and foreign nationals carrying on business in the country. There is a generous quota of exchange for travel within the soft currency countries, though travel to Dollar areas has to be specially authorised. Investment of Indian capital in foreign countries is not permitted except in the case of opening of branches of trading, banking and insurance companies.

Reserve Bank of India is in charge of the overall administration of exchange control. However, it has delegated considerable authority over day-to-day operations to those banks and their branches which have been authorised to deal in foreign exchange. All exchanges must be bought and sold at prices prescribed by the Reserve Bank of India.

INTERNAL TRADE—India's Coastal Trade has been divided into the following maritime blocks—(1) West Bengal (2) Orissa (3) Madras and Andhra (4) Kerala (5) Cochin Port (6) Bombay (7) Saurashtra, Okha and Kutch. The trade between ports in the some maritime block is classed 'internal trade' and that between one maritime block and another as 'external trade'. In 1956-57 the total coast-wise trade was valued at Rs. 343 crores, consisting of Rs. 180 crores imports and Rs. 163 crore exports.

DIRECTION OF FOREIGN TRADE—About one-half of the total foreign trade of India is confined to three countries, viz., the U.K., the U.S A., and West Germany, whose shares come to 27 per cent. 14 per cent. and 9 per cent respectively. In pre-war period, the British Commonwealth occupied the foremost position in our foreign trade ; in recent years her relative importance has declined and our trade with the U S A.. West Germany, Japan. Italy, the U.S.S.R. and countries of West Asia and East Asia is on the increase.

TARIFF COMMISSION—The origin of the Tariff Commission is to be found in the recommendations of the Fiscal Committee established by the Govt. of India by a resolution on 20th April, 1949. The

Fiscal Commission came to the conclusion that India needs a permanent authority to examine claims for protection to supersede the old temporarily appointed Tariff Boards and that the terms of reference of the new body and its powers should be wider than those of the old Tariff Boards. The Fiscal Commission laid down as its first principle for the application of protection that it should be related to an overall planning of development.

Its Constitution—The membership of the Tariff Commission comprises not less than three and not more than five members, one of whom is to act as Chairman. Not more than two additional members may be appointed for special purposes. Assessors with special knowledge may also be appointed by the Central Government to assist the Commission in specific enquiries. Sittings of the Commission are to be open to the public unless the Commission decides otherwise in any particular case.

The Commission is a quasi-judicial body and can, as such, summon and enforce attendance, examine on oath and compel the production of documents.

The functions of the Commission—The Commission may—

(a) consider claims of protection from industries which have not yet started production ;

(b) consider the question of protection for agricultural as well as other industries ;

(c) consider requests for protection by means other than an increase in tariff rates, *e.g.*, by concessional duties in respect of raw materials and by subsidies ,

(d) enquire and report generally on the efforts of protection on prices and cost of living and on anomalies arising from the operation of protective or revenue duties ;

(e) act in respect of certain classes of enquiries, *sou motu* ;

(f) decide on the duration of protection ;

(g) enquire price of particular commodities whether protected or not ;

(h) investigate into and report on the following matters—increase or decrease in customs or other duties for protective purposes, dumping, undue advantage being taken of tariff protection by protected industries ;

(i) consider the effect of protection on the general price level, the cost of living or the country's economy generally ;

(j) consider anomalies resulting from the working of protective duties ;

(k) enquire, at prescribed intervals of the effects of protection on a given industry with reference to cost of production, scale of output, quality, prospects of future expansion and the competitive position of the industry.

Principles guiding the Enquiries—When investigating a case for protection, the Commission is required to have due regard to the following points—

(a) Comparative costs of production in India and competing countries ;

(b) Cost of import of competing commodities ;

(c) **Representative fair selling price ;**
(d) **Level of demand, local production, and import ;**
(e) **Effect of protection (if granted) on other industries including cottage and small scale industries.**

INDIA'S FOREIGN EXCHANGE RESERVES

(Lakhs of Rupees)

	Assets	*Movements* (increase + decrease —)		*Assets*	*Movements* (increase + decrease —)
1952-53	803,40	+16,71	1955-56	824,61	+ 10,47
1953-54	832,27	+28,87	1956-57	681,10	—143,51
1954-55	814,14	—18,13	1957-58	421,22	—259,88

(*Report on Currency and Finance*, 1957-58).

• INDIA'S STERLING BALANCES

(In Crores of Rupees)

Average of Fridays	*Foreign Securities*	*Balance held abroad*	*Sterling Balances*
1948-49	907.47	307.78	1215.25
1949-50	647.04	180.91	827.95
1950-51	624.70	207.70	832.40
1951-52	625.27	187.14	812.41
1952-53	564.40	183.56	697.96
1953-54	594.02	123.31	717.33
1954-55	648.81	87.53	736.34
1955-56	656.52	66.96	723.48
1956-57	545.61	64.77	610.38
1957-58	329.65	40.47	320.12

INDIA'S BALANCE OF PAYMENTS

(All areas—current account)

Crores of Rupees

	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58
Imports c.i.f.	633.0	591.8	683.8	761.4	1095.6	1174.8
Exports f.o.b.	601.9	539.7	596.6	640.2	635.1	668.9
Trade balance	—31.1	—52.1	—87.2	—121.2	—460.5	—505.9
Official Donations (net)	+10.8	+19.0	+15.8	+45.0	+44.7	+29.2
Other invisibles (net)	+80.5	+80.5	+77.4	+88.5	+109.0	+99.9
Current account (net)	+60.2	+47.4	+6.0	+12.3	—306.8	—376.8

(*Report on Currency and Finance*, 1957-58).

VALUE OF IMPORTS, EXPORTS, RE-EXPORTS AND BALANCE OF FOREIGN TRADE OF INDIA IN MERCHANDISE BY SEA, AIR AND LAND

(In Lakhs of Rupees)

	Imports	*Exports*	*Re-Exports*	*Balance of trade in merchandise**
1951-52	970 84	728,89	13,89	—237,10
1952-53	671,23	572,31	6,74	—93,69
1953-54	575,74	526,16	4,85	—44,65
1954-55	656,44	588,47	5,50	—62,72
1955-56	704,99	603 85	5,67	—95,43

* **Excluding Transit Trade.**

INDIA'S INTERNAL (COAST-WISE) TRADE

(In Lakhs of Rupees)

	Imports	Exports
1953-54	15,516	15,069
1954-55	15,645	15,492
1955-56	17,823	15,979
1956-57	17,953	16,314

INDIA'S BALANCE OF TRADE IN MERCHANDISE

(Sea, Air and Land—Private and Government)

(Lakhs of Rupees)

	Imports	Exports	Balance of Trade
1952-53	669,88	577,37	—92,51
1953-54	571,03	530,62	—41,31
1954-55	656,26	593,54	—62,72
1955-56	704,81	609,41	—95,40
1956-57	532 45	612,52	—219,93
1957-58	927,19	637,43	—289,76

(Report on Currency and Finance 1957-58)

COMPOSITION OF INDIA'S FOREIGN TRADE, 1957

(In Crores of Rupees)

	Total Exports	Imports	Balance of Trade
Food	179.34	95.87	+83.47
Beverages & Tobacco	12.86	2.28	+10.58
Crude materials, inedible except fuels	124.64	112.16	+12.48
Minerals, fuels, lubricants, etc.,	12.93	107.58	—95.55
Animal & vegetable oils & fats	12.69	5.92	+6.77
Chemicals	5.60	76.97	—71.17
Manufactured goods	272.43	286.54	—305.07
Machinery & Transport Equipment	3.71	308.78	—305.07
Miscellaneous manufactured articles	9.95	22.55	—12.60
Transactions & Commodities not elsewhere specified	9.58	7.36	+2.22
Grand Total	642.85	1025.82	—382.97

(Department of Commercial Intelligence & Statistics).

PROHIBITION IN INDIA

BEGINNING OF PROHIBITION IN INDIA—From the days of the first Satyagraha movement by Mahatma Gandhi in 1921, prohibition has been one of the main items of the Congress movement in the country. The Article 47 of the Indian Constitution has laid down as a Directive Principle of State Policy that "State shall endeavour to bring about prohibition of the consumption except for medicinal purposes, of intoxicating drinks and drugs which are injurious to health." In 1937, when popular ministries came into power in majority of provinces, the experiments in prohibition were then first carried out. Comprehensive legislation was passed in five provinces, i.e., Madras, C. P. and Berar, Bihar, Orissa and N. W. F. P. between 1937 and 1939. With the withdrawal of popular ministries in 1939, the movement received a setback. The New Constitution of India again gave a fresh life to this movement in 1950.

At the beginning of 1957 the area in which the prohibition was in force was 32.2 per cent of the total area and its population 39.9 per cent of the country's population. Though outwordly it may look impressive, there is a general conscious opinion in India that Prohibition has now become almost failure.

PRESENT STATE OF PROHIBITION IN INDIA—In Bombay, Madras, Andhra, Coorg, Kutch and Saurashtra there is total prohibition today and partial prohibition (ranging from one dry district each in Punjab and Madhya Baharat to nearly 70 per cent of the total area in Mysore) in the States of Assam, Delhi, Madhya Pradesh, Orissa, Punjab, Uttar Pradesh, Madhya Bharat, Mysore, Travancore-Cochin and Himachal Pradesh. In 1956 Coorg and Kutch had adopted the policy of total prohibition before their merger. A phased programme had also come into force in Rajasthan and former States of Delhi, Bhopal, Hyderabad and Madhya Bharat. Orissa enacted a prohibition Act in 1956. The area under prohibition in India is 32.1 p.c. of the total area and its population 40.5 per cent of the country's population.

POSITION IN THE STATES—The Government of *Jammu* and *Kashmir* have expressed inability to introduce Prohibition, as the State economy depends on tourist traffic.

In West Bengal, no prohibition programme has been taken up.

The entire State of *Madras* went dry in October 1948. The State Government is in entire agreement with the resolution on Prohibition passed by the Indian National Congress in April, 1954.

With a view to gradually achieving the goal of prohibition, the State of *Bihar* has been following the policy of maximum revenue with the minimum of consumption and has adopted a number of temperance measures.

In *Andhra Pradesh* Prohibition is in force throughout the State.

Delhi—A law has been imposed upon Delhi on sale of liquor to any one below 25. Similarly, the sale of foreign liquor in public rooms in

hotels and Dak Bunglows has been totally stopped. Restrictions have been imposed upon the printing or publishing of advertisements, etc. Licenses for the retail sale of foreign liquor in a restaurant or a bar attached to an hotel or a restaurant or a theatre or cinema or at a Railway Refreshment Room as also licenses for the bottling of the foreign liquor have been abolished. Clubs have been lincensed with restricted sale hours. They are allowed to serve to members only and not to their guests. Retail sale limit of foreign liquors has been reduced from 12 reputed quart bottles to three reputed quart bottles. Assessment fees have been considerably increased. Number of dry days have also been increased from one to two a week. Number of country liquor shops have been reduced by two. *Dhabus* (small restaurants) attached to the country liquor shops have been abolished. The strength of the country liquor has been reduced from 80 nP. to 50 nP.

Bombay—Prohibition is in operation in the entire old State of Bombay. In pursuance of their decision to extend total prohibition to the remaining areas of the new State of Bombay all new Divisions have gone dry.

In Saurashtra and Kutch, the Bombay Prohibition Act, 1949 is already in force except in respect of opium. There is total prohibition in respect of country liquor, toddy and foreign liquor.

The entire district of Kamrup in *Assam* has been declared a dry area. In *Orissa* prohibition has been extended to the Ganjam and Koraput district.

Partial Prohibition has been in force in *Madhya Pradesh* since 1938. Total Prohibition of all intoxicants is the policy of the State Government towards which all efforts are being directed.

***Hyderabad* has no programme of Prohibition. The sales of opium and ganja are, however, reduced by 10 per cent every year for the last four years with the ultimate object of making them available only to those persons who produce a medical certificate.**

Uttar Pradesh—Total Prohibition has been in force in eleven districts of U.P., namely, Etah, Manipuri, Badaun, Furrukhabad, Jaunpur, Pratabgarh, Una, Kanpur, Fatehpur and Rae Bareli out of a total 51 districts and partial prohibition in the three pilgrim centres of Vrindaban, Hardwar and Rishikesh, representing about one-sixth of the area and one-fifth of the population of the State. In order to implement the policy of the Government of India to stop oral consumption of opium by March 31, 1959, the quota of opium in each district is being reduced by 12½ per cent every year. The results of a survey conducted by the Government regarding the conditions prevailing in the dry areas of the State are under consideration and it is hoped they will help in determining the future course of action to be taken with regard to Prohibition.

Ajmer—Ajmer State Prohibition Scheme was brought into force in 1949 under which quota of each kind of intoxicant has been fixed and in the case of opium permit system has been introduced.

Mysore—Prohibition is now in force in six districts and four taluks of the State of Mysore. Tapping has been prohibited in dry areas from 1st July, 1954.

Orissa—has enacted a comprehensive legislation on prohibition in 1956.

In *Madhya Bharat* the Government has adopted a cautious policy of implementing it in stages. To begin with, the State introduced prohibition on the experimental basis in Bhilsa. The Government also took steps to create a 5-mile broad dry-belt along the Bombay border. The Government has been curtailing its quota of opium by 60 maunds every year.

Himachal Pradesh—There is total prohibition in certain areas. At other places, the quota of country liquor has been reduced and the number of excise shops has been cut down. As regards stoppage of drinks in hotels, bars, etc., the policy of gradual prohibition is being followed.

Andaman and Nicobar Islands—The number of dry days in a week has been increased to five.

Tripura—All excise shops are kept close one day in a week and selling hours have also been reduced. The strength of the liquor is now from 40 nP. to 30 nP.

Manipur—Only general educative measures have been undertaken for the spread of prohibition in the territory.

Control of Opium—Control on the consumption of opium has been in force since 1949 with the main object of introducing total prohibition throughout the country by 1959. The Government of India holds the monopoly for the production and sale of opium in the country and it is making progressive cut of 10 p.c. every year in the quota of opium allowed to the States Excise Departments. The State Governments in turn have been cutting down the supply of quota to licensed vendors. There has been complete stoppage of charas in India since 1946. The sale of *Ganja* was prohibited throughout U. P. from April 1, 1956. The Government *Ganja* store in Madras was closed in 1949-50. A permit system has been introduced by the Bombay Government whereby registered addicts are supplied Ganja and Bhang from Government Depots in restricted quantities.

PROHIBITION ENQUIRY COMMITTEE'S REPORT—Prohibition Enquiry Committee was appointed by the Planning Commission in 1954 under the chairmanship of Mr. Sriman Narayan.

The Report of the Committee was out on October 25, 1955. Its main recommendations are as follows—

1. The prohibition should become law throughout India by April 1, 1958.
2. A Central Committee should be constituted to review the progress of prohibition.

The Report of the committee was considered by the Central and State Governments and was broadly approved by the National Development Council in 1956. By a resolution, Lok Sabha on March 31, 1956 affirmed that prohibition be regarded an integral part of the Second Plan and recommended the formation of a programme to bring about nationwide prohibition speedily and effectively.

Programme & Policy—The programme formulated by the *Planning Commssion* in this respect is as follows—(1) Each State is left to fix a target date and to formulate its policy in accordance with local conditions and circumstances. (2) In determining the country's prohibition policy, enforcement measures, public opinion and provision for alternative recreations should be the decisime factor.

Pending the detailed scrutiny of the proposals made by the Prohibition Committee, the Planning Commission has recommended the following steps to be taken by the States—(1) Discontinuance of of alcoholic advertisements, (2) stoppage of drinking in public places, (3) setting up of technical committees to draw up planned programmes with the object of (*a*) progressive reduction of liquor shops, (*b*) gradually increasing the number of closed days, (*c*) reducing the supplies of liquor shops, (*d*) progressively reducing the strength of liquor, (*e*) closing shops in and near specified industrial and development project areas, (*f*) removal of shops away from the main streets and living quarters, (*g*) to encourage and promote the production of cheap and health-giving drinks, (*h*) organising of recreation centres, (*i*) prohibition is to be made 'main item in community projects and rural welfare extension projects.

EDUCATION,—SCIENTIFIC RESEARCH & CULTURAL AFFAIRS

INDIAN EDUCATION

THE PRESENT SET-UP—Education is a State subject, but Union Government is responsible for the administration of institutions of national importance for scientific or technical education, financed wholly or in part by it and a number of institutions of higher learning. The Archaeological Survey of India, Anthropological Survey of India, National Archives and National Library, Calcutta, are under the Education Ministry.

In 1957 with formation of the new Union Government, the Ministries of Education and Natural Resources and Scientific Research (under the same Minister) were reorganised The Ministry of Natural Resources and Scientific Research was abolished ; the Ministry of Education became the Ministry of Education and Scientific Research, taking the subject "Scientific Research" from the former Ministry of Natural Resources and Scientific Research ; the subject 'National Resources' was transferred to the new Ministry of Steel, Mines and Fuel. The Ministry of Education and Scientific Research on reorganisation comprised the following Departments—

A. Department of Education.

B. Department of Cultural Activities and Physical Education, and

C. Department of Scientific and Technical Education.

Again with effect from February 10, 1948, the Department of Education has been renamed as the *Ministry of Education* and the Departments of Cultural Activities and Physical Education and Technical Education have been amalgamated and called as the *Ministry of Scientific Research and Cultural Affairs.* Both these Ministries are under the charge of two Ministers of State.

EDUCATIONAL SYSTEM IN INDIA—At the lowest level of our educational system are *Nursery Schools* for children of age-group 3—6. Then come the *Primary or Elementary Schools* for children of age-group 6—11. These schools are called *Junior Basic Schools.* The *Secondary Schools* which follow next are of two categories—the *middle* or the *Senior Basic Schools* and the *High Schools.* These cater to the needs of children of roughly the age-groups 11—14 and 11—16 respectively. In some States, the Secondary Schools are called Higher Secondary Schools and cater to the needs of children of roughly the age-group 11—17. In general education next to High Schools are the *Intermediate Colleges* or the Intermediate Classes of Degree Colleges. These generally cover the age-group 16—18. After passing the Intermediate, the students enter Degree Colleges or the Universities and the age-group covered here is roughly 18—24.

So the present educational structure in India may be summarised as follows—(1) Primary schools which impart instruction through regional language or the mother tongue of the child; (2) middle schools which impart instruction through regional language and English or only through the regional language ; (3) secondary schools which provide instruction up to the matriculation standard ; (4) intermediate colleges affiliated to boards or universities ; (5) degree colleges affiliated to the universities and (6) post-graduate and research institutions.

In professional education, the Polytechnics or Vocational and Technical Schools are of a mixed type in the sense that the diplomas and certificates awarded together are of both an undergraduate and higher standard. The professional and technical colleges are at par in standard with other colleges and award University degrees.

Three Years Degree Course—In most of the Universities, three years degree course have been introduced. As soon as a student passes higher secondary examination, he directly goes for the degree course omitting the intermediate stage, but this takes three years course instead of four years as was the previous rule. The following universities have already introduced this three-year degree course—Delhi, Jadavpur, Saugor, Madras, Baroda, Karnatak, Kerala, Osmania, Visva Bharati, Mysore, Sardar Ballabhbhai Vidyapith, Nagpur, Andhra, Annamalai, Aligarh, Sri Venkateswara, Vikram, Poona, Marathwada and Rajasthan

The Ministry of Education—deals with the following subjects—General Educational Development ; University, Secondary, Primary, Preprimary and Basic Education ; Central Universities, Central Bureau of Text-book Research ; Central Bureau of Educational and Vocational Guidance ; Public Schools ; Central Educational Libraty ; Delhi Public Library ; National Book Trust ; Central Social Welfare Board ; UNESCO ; various schemes of scholarship ; Development of

Hindi; Publications, Information and Statistics; National Institute of Basic Education; National Fundamental Education Centre; All India Council of Secondary Education; Central Institute of Education; Training Centre for the Adult Blind; Central Braille Press and University Grants Commission. A brief description of the activities of the Ministry of Education is described as follows—

University Education—At present there are four centrally administered Universities created by the Acts of the Parliament, *i.e.*, Aligarh Muslim University, Banaras Hindu University, University of Delhi and Bisva-Bharati of Santiniketan. The Ministry of Education is responsible for the progress and upkeep of these Universities in accordance with the provisions of the relative Acts.

Basic Education—This is one of the important responsibilities of the Ministry of Education. The responsibility includes the grant of subsidies to the States in order to enable them to improve the standard of Basic and Primary Education and to expand educational facilities for children of the age group 6– 11 as required by Article 45 of the Constitution. The Government of India and State Governments have accepted Basic Education as the national pattern of elementary education for children. The scheme of Basic education was was thoroughly considered by the *Sargent Committee* before the attainment of independence which envisaged *inter alia* the provision of universal, free and compulsory elementary education throughout the country within a period of 40 years. The Indian Constitution also incorporated a Directive that State should endeavour to provide free and compulsory elementary education for all children up to the age of 14 years within 10 years of the commencement of the Constitution. The concept and system of Basic Education was clearly defined in the Report of the Basic National Education Committee known as *Zakir Husain Committee* and further elucidated by the Central Advisory Board of Education. The Basic Education is imported through productive or creative activity in the form of crafts and centres around the physical and social environments of the child. Emphasis on productive activity however, does not imply the elimination of the humanising influence of the ordinary school subjects. In order to accelerate the pace of progress and to fulfil the Directive Principles of the Constitution, the Government of India have set up an *All India Council for Elementary Education* on 1st July, 1957 to advise the Central and State Governments on all matters relating to elementary education and to prepare programmes for the early implementation of compulsory and free elementary education. It will review, from time to time, the progress made in the field of elementary education, specially in the light of the implementation of the directive contained in Article 45 of the Constitution, and make such recommendations as may be necessary to achieve the early implementation of the directive.

There is a *National Institute of Basic Education* at Delhi, set up in February 1956, the main functions of which are—(1) to conduct research in basic education and crafts (2) to impart advanced training in basic education to inspectors, administrators and other higher personnel in educational field. There is also a *Standing*

Committee of the Central Advisory Board of Education on Basic Education (1) to advise in the planning of the policy for the development of basic education (2) examine the work done in this field by the Centre and the State Governments and to suggest ways and means for promoting further development (3) to examine the problem of basic education with special reference to (*a*) the Development of corelated techniques of teaching (*b*) the productive aspect (*c*) preparation of suitable materials and aids, etc.

Secondary Education—The proper organisation of Secondary Education is very important in this country because it seeks to bring about a far-reaching social, cultural and economic revolution amongst the people. So Secondary Education Commission was appointed in 1952 which in its report in 1953 recommended a reorientation and reorganisation of Secondary Education which would involve vital changes in the curriculum and the examination system with the aim of making it a self-contained and complete stage upto the age of 17. On the basis of the recommendation of the Secondary Education Commission the following pattern of education has been accepted by the Government of India—(*a*) 8 years of integrated Elementary (Basic) Education, (*b*) three years of Higher Secondary Education with diversification of courses which will give a vocational bias to the education and will serve to make the secondary stage both a terminal point to enter life and a preparation for further studies.

To carry out this scheme, higher schools are being converted into multipurpose higher secondary schools with the help of Government financial assistance. A student passing from a Higher Secondary Multipurpose School could take up the three-year degree course straightaway, whereas a student matriculating from an ordinary secondary school would have to take the four-year course or attend one years' pre-university course before taking the three-year degree course (*c*) three years of University Education after the higher Secondary School stage leading to the first degree. This scheme of reconstruction of Secondary Education was launched by the Ministry of Education in 1954.

All India Council of Secondary Education was set up by the Government of India in August 1955, in persuance of the recommendation of the Secondary Education Commission. Its main functions are to review from time to time the progress of Secondary Education throughout the country and to serve as an expert body to advise the State and the Central Government on the improvement and expansion of Secondary Education in all its phases.

Social Education—The concept of Social Education was embodied in a five-point programme, to promote—(1) literacy, (2) a knowledge of the rules of health and hygiene, (3) training for the improvement of the adults' economic status, (4) a sense of citizenship with an adequate consciousness of rights and duties and (5) healthy forms of recreation suited to the needs of the community and the individual. The States execute the various schemes, while the Centre provides guidance, financial assistance and co-ordination. In this sphere of Social Education, the Ministry of Education is responsible for advising and helping the State programmes of Adult and

Social Education It has also taken up a number of schemes to encourage the production of suitable literature for adults.

Some of the outstanding agencies of Social Education are as follows—(*a*) *Prize Scheme for best Books for Neo-Literates*—Since 1956 the Government of India have been awarding prizes on best books for neo-literates in all regional languages by holding annual prize competition, (*b*) with a view to developing children's literature in the various Indian languages the Ministry of Education has awarded prizes to authors of outstanding books for children, (*c*) Ministry has offered a prize of Rs. 5,000 for the best manuscript on the 'History of India, (*d*) *Literary Workshops* are held for training authors to write for neo-literates, (*e*) the Ministry gives assistance to various State Governments for conducting research in the spoken vocabulary of the people in a limited area, (*f*) *National Book Trust* has been established with a view to encouraging the production of good literature and to make such books available at moderate prices. (*g*) *Children's Book Trust* has been established for the production of children's books (*h*) *model books* are being produced by the Ministry in order to raise the level of book, production in children's literature. (*i*) *Audio-Visual Aids*—Central Film Library with films and film strips on various educational and cultural subjects has been started. There is a *National Board for Audio-Visual Education* to formulate the policy for the development of Audio-visual education on an all-India basis. A *Central Audio-Visual Education Institute* has been started in 1958.

Public Schools - The Education Ministry deals with Public Schools in India which are members of the Indian Public Schools Conference. The Ministry grants financial assistance to these schools to become self-supporting as far as possible. It has been recommended by the Elementary Education Commission not to give financial assistance after 1957-58. But these institutions can seek assistance as other educational institutions do, if they fulfil the conditions laid down for the same. The Indian Public Schools, while in almost all other respects aiming at complete Indianization, have striven hard to follow the British tradition. They are mainly but not necessarily residential and better housed, better equipped and generally better staffed than the ordinary State and grant-in-aid schools. At present Indian public schools are of four types, distinguished mainly by their origin. *First* are the schools which were formerly institutions founded exclusively for the sons of the Indian princes, such as *Scindia School in Gwalior, Rajkumar Colleges of Raipur and Rajkot, Daly College, Indore and Mayo College, Ajmer*, *Second type* of public schools are *Doon School, Dehra Dun, Birla Vidyamandir, Nainital, Hyderabad Public School, Lawrence School, Lovedale, Nilgiris*, etc., etc. The *third type* of schools are *St. Pauls' School, Darjeeling, Bishop Cotton School, Simla*, etc. These Schools are associated members of the Indian Public Schools Conference. The Conference now also recognises and affiliates certain schools which are not wholly residential but which offer educational facilities of a high standard to whole day pupils also. In this category is the Modern School, New Delhi. These is a *fourth type* of schools represented by the well-known institutions like Bishop

Cotton Schools, St. Pauls' School, Darjeeling and some Anglo-Indian Schools, such as La Martiniere Schools which have not joined the Conference. They are really the oldest schools of the public school type in India. There is difficulty at present in their inclusion as full members of the Conference as they were orginally Christian Missionary foundations, and as such had to insist on attendance at Christian religious services and in some cases on sectarian religious instruction for all pupils. The present membership of the Conference is now about twenty.

Scholarships—The main functions of the Ministry of Education regarding scholarships are—(*a*) to administer the various scholarships schemes (*b*) to look after the welfare of Indian students abroad (*c*) to secure admissions in Indian universities/institutions for foreign (private) and African students, awarded freeships by Indian universities and State Governments (*d*) to look after the welfare of foreign students in India (*e*) to attend to enquiries relating to the scholarships schemes and facilities for practical training abroad and (*f*) to provide partial financial assistance in the form of loans to those schemes who are eligible for such aid. At present the following Scholarships Schemes are being administered by the Education Ministry—(*A*) *For Studies Abroad*—(*a*) Government of India Scholarships Schemes (*b*) Colombo Plan and Point Four Programme Scholarships and Fellowships (*c*) United Nations and UNESCO Scholarships and Fellowships (*d*) Foreign Governments Scholarships/Fellowships (*e*) Foreign Institutions/Organisations Scholarships/Fellowships for Study/Practical Training (*B*) *For Studies in India*—(*a*) For Foreign Nationals (*b*) For Indian Nationals.

Development of Hindi—The Constitution of India has laid down that Hindi shall be the official language of the Union within a period of 15 years. So a fifteen-year programme for the development and propagation of Hindi has been adopted divided into the following stages—(1) In the first stage, the major portion of the work of preparing Hindi technical terms are to be completed (2) In the Second Stage, instruction in Hindi by opening classes and through other media in non-Hindi speaking areas to be provided (3) In the third stage, Hindi to be introduced as the official language of the Central Government and as a medium of communication between the Centre and the States in addition to English.

Twenty-three Expert Committees have been constituted under the Board of Scientific Terminology for evolving technical terminology in Hindi. Standard Key-boards have been evolved for the Hindi typewriter and Hindi teleprinter. A Hindi Commission has been set up to examine the feasibility of adopting Hindi as the official language within the stipulated period. A Hindi Shiksha Samiti has been constituted to aid and advise the Ministry on matters relating to propagation and development of Hindi. Grants have been given for the compilation of standard Hindi dictionary, an English-Hindi dictionary and cheap editions of Hindi classics.

HIGHER AND UNIVERSITY EDUCATION—The University education in India is imparted through (*a*) arts and science colleges (*b*) professional colleges (*c*) special educational colleges (*d*) research institutions and (*e*) universities. In States, where there is a Board of Higher Secondary and Intermediate Education, the post-intermediate stage is conducted under the direction and control of universities in respect of courses of study, examination and award of degrees and diplomas. There are three types of universities in India—(1) *Affiliating* universities which merely prescribe courses of study, conduct examinations and awards degrees and diplomas but do not undertake the task of teaching. (2) The *affiliating and teaching* universities in addition carrying out functions of the affiliating type, offer teaching and research facilities (3) *Residential and Teaching Type* of Universities control all colleges under their jurisdiction in all respects and undertake teaching at all levels.

In order to discuss university problems and for co-operation among all-universities in India and also for the mutual recognition of degrees and diplomas awarded by the universities in India the *Inter-Universities Board* was formed in 1925. This serves as a forum for discussion for all University problems. This is an advisory body.

University Grants Commission was appointed in 1953. It was given an autonomous statutory status by the University Grants Commission Act 3 of 1956. The main functions of the Commission are (1) to enquire in to the financial needs of the Universities (2) to allocate and disburse grants to universities out of its funds (3) to advise the Central Government or any State Government on the allocations of any grants to universities for any general or specified purpose out of the Consolidated Fund of India or the Consolidated Fund of the State as the case may be (*d*) advise any authority on the establishment of a new university or on proposals connected with the expansion of the activities of any university.

EDUCATION OF THE HANDICAPPED—*The Training Centre for the Adult Blind* that was taken over from St. Dunstan's at Dehra Dun in January 1950, imparts training in the cottage industry type handicrafts to about 150 adult blind men from all parts of India. It also offers training in music and Braille shorthand typewriting. The Central Braille Press was set up at Dehra Dun in 1950 to produce literature for the blind in the principal Indian languages. A *National Advisory Council for the Education of the Handicapped* was appointed in September 1955. Its main functions are to advise the Government of India on all problems concerning the physically and mentally handicapped and to formulate new schemes. Scholarships are awarded to blind, deaf and orthopaedically handicapped students for higher education. Grants are provided to institutions or organisations for the handicapped for development work.

SOME ADVISORY BODIES AND SUBORDINATE OFFICES—There are some advisory bodies and subordinate offices under the Ministry of Education. The short description of these bodies and offices are given here—

Central Institute of Education, Delhi—is an all-India institution established in 1947. Its two primary functions are—(1) to conduct research projects in education and psychology and (2) to conduct teacher-training and other courses leading to higher degrees at the post-graduate level in education and psychology. *National*

Council for Higher Education in Rural areas has been set up to advise the Government on all matters relating to the development of rural higher education. Its main functions are (1) to serve as an expert body to advise central and the State Governments about the improvement and expansion of rural education in all its aspects (2) to advise the rural education institutions and act as a co-ordinating agency amongst them (3) to initiate schemes for the development and maintenance of standards of high school education in rural areas and to encourage research in problems relating to rural education in all its aspects.

Central Social Welfare Board was set-up in August 1953 as an autonomous body. The main objectives of the Board are—(1) to survey the needs and evaluate the programmes of social welfare organisations (2) to promote the setting-up of social welfare institutions in places where they do not exist (3) to give grants-in-aid to voluntary institutions providing welfare services to women, children, delinquents, the handicapped, the aged and the infirm and other needy groups (4) to subsidise hostels for working women and the blind.

Central Advisory Board of Education has the following main functions—(1) To advise on any educational question which may be referred to it by the Government of India or by any State Government (2) to call for information and advice regarding educational developments of special interest or value to India.

Overseas Education Departments—Four Overseas Education Departments located in London, Washington, Bonn and Nairobi are attached to the Diplomatic Missions in those places. The Ministry of Education is responsible for overall co-ordination of their work. These Departments supply information to Indian students interested in higher education abroad.

SCIENTIFIC RESEARCH AND CULTURAL AFFAIRS

The New Set-up—From February 10, 1958, the Ministry of Education has been renamed *Ministry of Education* and the Departments of Cultural Activities and Physical Education and Scientific Research and Technical Education have been amalgamated and designated as the *Ministry of Scientifio Research and Cultural Affairs.*

The Cultural Activities and Physical Education—consist of Cultural Activities, Sangeet Natak Akademi, Lalit Kala Akademi, National Theatre, Compilation of the Gazetteer, History of the Freedom Movement, Copyright, Indology, Museums, Youth Welfare and Physical Culture, Sports, Cultural Relations with other countries, Indian Council for Cultural Relations, Department of Archaeology, Department of Anthropology, National Archives of India, National Gallery of Modern Art, Indian War Memorial Museum, National Library (Calcutta), Central Secretariat Library.

Scientific Research—Consists of Scientific Research, Technical and Scientific Education, Vigyan Mandirs, All Polytechnics, All-

India Council for Technical Education, Delhi School of Town and Country Planning, Indian Institute of Technology (Kharagpur) and similar Institutes, Indian Institute of Science of Bangalore, Compilation of National Atlas, Geological Survey of India, Survey of India, Central Board of Geophysics, Botanical Survey of India, Zoological Survey of India.

The Organisations and Offices for Cultural Affairs, Physical Education, Scientific Research and Technical Education—

Archeology—This is under the Department of Archeology and is responsible for the preservation of ancient monuments of national importance and for undertaking exploration and archaeological excavations.

Anthropology—In India where tribal people form a significant part of the population, anthopology has an important part to play in framing a proper policy of tribal rehabilitation. This Department of Anthropology is responsible for the anthropological surveys which includes social, psychological, economic, linguistic, physical, genetic investigations. One of the chief functions of the Department is the study of the physical types of men as found in large number of tribes in Indian population, their genetical constitution, rates of growth, phychological reactions and ethnographic character and thus assist also in the proper administration of tribal areas without interfering in their mode of life. Field work is undertaken amongst various tribes on social and physical anthropology, linguistics, folk lore, nutrition and psychology. This Department works through these eight research sections—(1) social anthropology (2) social psychology (3) ethnography (4) linguistics (5) human biology (with an X-Ray sub-section) (6) comparative morphology (with an anatomy and vertebrate zoology sub-section) (7) somatology (with an anatomy and vertebrate zoology sub-section) (7) somatology and (8) bio-chemistry.

This Department has three regional research stations situated at Shillong, Nagpur and Port Blair. These research stations facilitate field surveys conducted in co-operation and co-ordination and often jointly, with the headquarters.

The Government of India have set-up the Central Board of Anthopology to establish closer contacts with the universities on the one hand and with the administration and Welfare Departments of the Central and State Governments on the other.

National Archives of India, New Delhi—is the only archival repository of the Government of India in which are housed all important records from the early days of the East India Company. It is responsible for the preservation of records by up-to-date scientific processes. The nature of records, files and books at present maintained in the National Archives of India in New Delhi are mostly of the following nature—(1) Records of the E. I. Company 1752-1858 (Gaps). (2) Records of the Government of India from 1859 onwards (3) Records of the defunct Residencies and Political Agencies in India. The books in the custody of the National Archives of India mostly belong to the category of printed documents or selections from records and other references books relating to the modern period of Indian history and allied subjects.

Museums—There are some important museums in India which are under this Ministry. *National Museum* at New Delhi is responsible for the exhibition and preservation of art objects and antiquities of national importance There is an *Indian War Memorial Museum at Red Fort Delhi* which is responsible for the preservation and maintenance of Indian war memorial exhibits kept therein The *Central Advisory Board of Museums* renders advice to the Government of India concerning the organisation and development of museums in the country and helps in promoting closer contacts between different museums and closer association with Government and the public. The *Indian Museum* at Calcutta the premier museum of the country is under this Ministry The *Victoria Memorial Hall* in Calcutta is also an historical and art museum

Art—The promotion of Art in India is within the sphere of this Ministry It has established *Lalit Kala Academy* at New Delhi in 1954 to encourage and promote study and research in the field of painting, sculpture, architecture and applied arts *A National Gallary of Modern Art* has been opened on March 1954 at Jaipur House, New Delhi, to house Indian paintings, sculpture, and other objects of art relating to period after 1857 There is a *Art Purchase Committee* of the Committee of the National Art Treasures which recommends to Government acquisitions of art objects worthy of being preserved in the National Museum and the National Gallary of Modern Art.

Libraries—The *National Library* at Calcutta, the biggest library of the country was established in 1902 and was then known as Imperial Library The library renders technical advice on library matters to the interested parties *The Central Secretariat Library* at New Delhi is an important library under the control of this Ministry

Literature—*Sahitya Akademi* was established in December 1954 with the object of preserving our heritage in letters and to stimulate by awards and distinctions, new writings The details of its activities will be found elsewhere

Music—*Sangeet Natak Akademi* was established at New Delhi in 1953 with the object of fostering and developing Indian dance, drama (including films) and music and to promote through them the cultural unity of the country

External Cultural Relations—With the growing importance of India in international affairs, the need for wider cultural contacts with the different parts of the world has been increasingly felt by the Government of India So these governmental activities with foreign countries are radiated through the following agencies—(1) *Indian Council of Cultural Relations* was formed in 1950 in order to establish, revive and strengthen cultural relations between India and other countries The various activities of the Council are exchange of eminent scholars, savants and students presentation of books and films about India, reception and entertainment of distinguished visitors Welfare of foreign students is an important activity of the Council for which it maintains regional offices in important centres of India, *Delhi International Students' House Society* has been established for providing residential accommodation for students from abroad as well as Indian students and foreign visitors. The International Students Hostel was formally inaugurated at Delhi on September 20, 1958 which is being run by the Indian Council of Cultural Relations. *National Commission for Co-operation with UNESCO* has been established by the Government of India which serves as a liaison agency between UNESCO and the Indian institutions working in Education, Science and Culture. It advises the Government on all matters relating to UNESCO. The Ministry and the Commission cooperate in UNESCO'S programme of educational and cultural massions.

Cultural Agreements have been concluded with many countries. *Grants* for promotion of cultural activities are given to many associations such as, Indo-Iranian, Indo-Egyptian, Indo-Turkish, Indo-German, Indo-Nepal, etc., Associations situated in India and outside. *Cultural Delegations* from abroad are invited to India and sent from India outside. *Sports and Musical Teams* are invited and sent outside India to strengthen cultural relations. Art objects and books are presented and purchased. Exchange of scholars and professors,, subsidising foreign versions of Indian classics and other modern works, exchange of artists, scientists, journalist, setting up of chairs of Indian studies in foreign countries are some of the works done by the Ministry to establish external cultural relations.

Physical Education and Youth Welfare—There is a *Central Advisory Board of Physical Education and Recreation*, established in 1950 to advise on the co-ordination of all programmes and activities in the field of physical education and recreation. Another important advisory body organised by the Government is the *All India Council of Sports* which advises the Government on matters relating to the development of games and sports in the country. It also functions as a co-operating agency between the National Sports Federations and Organisations which are affiliated to it. The *Lakshmibai College of Physical Education* has been started by the Government of India at Gwalior from 17th August, 1957. It is the only institution of its kind in the country and will provide training facilities for a three-year degree course in physical education at the under-graduate level. It will ultimately develop into a national centre for post-graduate studies and research in physical education. *Rajkumari Sports Coaching Scheme* was inaugurated in September 1953. This Scheme has made the country coaching conscious, established permanent coaching centres, offered coaching assistance to various States centres in almost all sports—outdoor and indoor—and organised coaching of coaches with the help of foreign coaching personnel. In order to help the expansion of Boy Scout movement in India, the Government of India sanctions substantial grants to *Bharat Scouts and Guides*. For *Youth Welfare Scheme*, the Union Government renders financial assistance to Schools and Colleges for organising educational tours in small batches of students. Inter-university youth festivals are held every year at Delhi, where students of all universities participate in various festivals.

National Discipline Scheme has the object of imparting physical and moral discipline to children in order to infuse in them ideals of good citizenship and comradeship. The children are given training by trained instructors in the traditional form of drill. This is supplemented by lectures in class rooms on the country's cultural heritage and the deeds of valour and chivalry of our ancestors. This scheme at first initiated by the Ministry of Rehabilitation has been taken over by the Ministry of Scientific Research and Cultural Affairs. In order to promote tourism which is an effective medium of education, the Government of India have made efforts to set up a network of *Youth Hostels* in the country. For this reason, the Government have sanctioned large amount to the Youth Hostels Association of India. The other endeavours for youth welfare are as follows—(*a*) holding of youth leadership training camps (*b*) travel concessions and financial assistance for organising youth tours (*c*) promotion of youth welfare boards and committees (*d*) setting up of non-student youth clubs and centres. (*e*) Labour and Social Service schemes to inculcate a sense of the dignity of manual labour in students etc.

Scientific Research and Technical Education—The Ministry of Scientific Research and Cultural Affairs has Scientific Research and Technical Education within its spheres. It exercises administrative control over 17 National Laboratories set-up by the Council of Scientific and Industrial Research, the Geodetic Survey of India, Zoological Survey of India, Botanical Survey of India and the Central Board of Geophysics. Apart from these organisations directly under its control, a limited control is also exercised by it over a number of scientific institutions and organisations by giving them liberal grants-in-aid for the promotion of scientific and technical research.

The Scientific and Research institutions under this Ministry are as follows—

Indian School of Mines and Applied Geology, Dhanbad—was started in 1926. It provides training in mining engineering, applied geology, petroleum techniques and applied geology.

Survey of India, Dehra Dun—The primary business of the Survey of India is to carry out topographical surveys throughout the country and to prepare up-to-date maps to cover the whole country depicting therein physical and other characteristic features and administrative sub-divisions. It is divided into seven circles, each under the charge of a Director—(*a*) Northern Circle, Dehra Dun (*b*) Southern Circle, Bangalore (*c*) Eastern Circle, Calcutta (*d*) Western Circle, Mt. Abu (*e*) Geodetic and Research Branch, Dehra Dun (*f*) Air Survey and Training Directorate, Dehra Dun (*g*) Map Publicacation Directorate, Dehra Dun.

Botanical Survey of India, Calcutta functions to explore the plant resources of the country by systematic surveys. It has under it the following organisations—(*a*) Office of the Chief Botanist, Calcutta (*b*) Central National Herbarium, Indian Botanic Garden, Calcutta (*c*) Industrial Section of the Indian Museum, Calcutta (*d*) Central Botanical Laboratory, Allahabad (*e*) Four regional circles based on phyto-geographical affinities, namely Eastern, Western, Northern and Southern Circles with headquarters at Shillong, Poona, Dehra Dun and Coimbatore.

Zoological Survey of India—was constituted in 1916. Its functions are as follows—(*a*) to undertake faunistic surveys for acquiring knowledge about the variety and geographical distribution of the Indian fauna (*b*) to maintain National Zoological collections and Zoological public galleries of the Indian Museum, (*c*) to act as a bureau of information on systematic zoology (*d*) to advise the Government of India on all matters connected with the science of zoology.

Central Board of Geophysics—is responsible for the co-ordination and development of the resources of scientific departments and universities for research, field work and training of personnel in geophysics. The Board functions as a co-ordinating body in geophysics and as the National Committee in India for the International Union of Geodesy and geophysics and also to arrange for the training of personnel in geophysics.

National Atlas Organisation, Calcutta—This Organisation was set-up to compile the National Atlas of India in Hindi and English and in other regional languages. The Hindi edition was brought out during the first week of October 1957. The Atlas depicts for the first time through maps the socio-economic picture of the country as influenced by environmental factors. It contains 96 maps in 26 sheets with explanatory notes both in Hindi and in English.

National Research Development Corporation of India—has been established in 1953 to stimulate development of patents and inventions arising out of the researches conducted in research institutions financed out of public funds and in the public interest of patented inventions made by individuals also. The Corporation is managed by a Board of Directors nominated by the President of India. It is a Government owned private Company under the Indian Companies Act.

Council of Scientific and Industrial Research—was established in 1942 as an autonomous body. Its functions are—(*a*) promotion guidance and co-ordination of scientific and industrial research in India (*b*) assisting establishment or development of special institutions or departments of existing institutions for scientific study affecting particular industries and trades (*c*) establishment and award of research studentships and fellowships. (*d*) establishment, maintenance and management of laboratories, workshops institutes and organisations to further scientific and industrial research for the use of Indian industries (*e*) collection and discrimination of information in regard not only to research but to industrial matters generally. The administration of the Council is vested in Governing Body. There is a Board of Scientific and Industrial Research which is the principal advisory body of the Council and advises the Governing Body on general technical matters. The Director-General, Scientific and Industrial Research is the principal executive officer of the Council. The supervision and co-ordination of the work of the seventeen National Laboratories are carried on by the Director-General of the Council.

Indian National Scientific Documentation Centre—has been set-up as a result of an agreement between the Government of India and the UNEECO in 1951. This is located at the National Physical Laboratory, New Delhi. The Centre provides documentation services to national laboratories, scientific institutions, universities and industrial concerns. The INSDOC is a national repository for reports of the scientific work carried out in the country, whether published or unpublished.

Indian Scientific Liaison Office, London—was set-up in 1948 and is responsible for (1) facilitating the movement of Indian scientists within the Commonwealth and for providing adequate facilities for them and their work (2) keeping abreast of the latest scientific and technical developments and making this information available to India (3) facilitating exchange of scientific information and experimental material (4) attending scientific and technical conferences in the U.K. and Europe not attended by delegates from India.

Vijyan Mandirs—are intended to educate the villagers on the potentialities of the methods of science in their day-to-day life. At the end of the year 1956-57, there were in existence 14 Vijyan Mandirs.

TECHNICAL EDUCATION

The Government of India have adopted a constructive and purposeful policy to develop technical education facilities on the widest scale possible. An *All-India Council for Technical Education* has been set-up by the Government of India in 1954 to advise it on all matters relating to the co-ordination and development of technical education in the country above the high school stage. The Council functions through certain Standing Committees and various *ad hoc* Committees appointed by it from time to time. The Council, however, has no executive or administrative or controlling powers. For the purpose of laying down of standards in technical education, the Council has appointed seven Boards of studies in different fields, namely, engineering and metallurgy, chemical engineering and chemical technology, textile technology, architecture and regional planning, applied art, commerce and management.

The *Indian Institute of Technology at Kharagpur* established in 1951, is the first of the four higher technological institutions as recommended by the Sarkar Committee. The Kharagpur Institute has been incorporated by an Act of the Parliament in April, 1957 as "an Institution of National Importence." *The School of Town and Country Planning*, Delhi, established in July 1955 conducts courses in all aspects of rural, urban and regional planning. *Northern Higher Technological Institute at Kanpur* is another of the four Institutes recommended by the Sarkar Committee. Of the other two higher technological institutes one has been established in Bombay, known as *Western Higher Technological Institute*. Substantial assistance in the form of laboratory and workshop equipment and expert professors for the institute has been secured from the USSR under the UNESCO Expanded Programme of Technical Assistance. The fourth institute is expected to be started in Madras. The Government of the Federal Republic of Germany have agreed to assist in the esta-

blishment and development of the Southern Institute with laboratory and workshop equipment and expert professors.

MUSEUMS IN INDIA

Indian Museum, Calcutta.
Govt. Industrial Museum, Cal.
Victoria Memorial Hall, Calcutta.
Bangiya Sahitya Parisad, Cal.
Commercial Museum, Calcutta.
Ashutosh Museum. (Cal. Univ.).
Natural History Museum. Darjeeling.
B. R. Sen Museum, Malda.
Patna Museum, Patna.
State Museum, Lucknow.
Sarnath Museum. Sarnath.
Archaeological Museum, Mathura.
Central Museum, Jaipur.
City Palace, Jaipur.
State Museum, Udaipur.
Victoria Hall Museum. Udaipur.
Rajasthan Museum, Ajmer.
Prince of Wales Museum, Bom.
Central Museum, Nagpur.
Fort St. George Museum, Madras.
Govt. Museum, Bangalore.
Gwalior Museum, Gwalior.
Ganga Golden Jubilee Museum, Bikaner.
Indore Museum, Indore.
Museum of Antiquities Padmanabhapuram (Kerala).
Venkata Vaidya Sadhan Museum, Rewa.
Bharat Itihasa Samsodhaka Mandal. Poona.
Vaisali Museum, Vaisali (Bihar).
Saranath Museum, Saranath.
Alwar Museum. Rajasthan.
Amber Museum, Rajasthan.
Amreli Museum, Bombay.
Bharatpur Museum, Bharatpur, (Rajasthan).
Bhopal Museum, Bhopal.
Bhuj Museum, Cutch.
Gurukul Museum, Kangra, (Punjab).
Historical Museum, Satara, (Bombay).
Hyderabad Museum. (Andhra Pradesh).
Ind. War Memorial Museum, Delhi.
Indonesian Gallary & Museum of Eastern Arts & Crafts, Trivandrum.
Janapada Sabha Museum, Raipur.
Jhalawar Museum. Jhalrapatan (Rajasthan).
Junagadh Museum. Junagadh.
Kondapur Site Museum, Kondapur. (Hyderabad).
Kota Museum, Kota (Rajasthan).
Mahant Ghasidas Museum. Raipur.
Maskis Site Museum, Hyderabad.
Municipal Museum, Allahabad.
Patiala Museum. Patiala.
Sanchi Museum, Bhopal.
Sardar Museum, Jodhpur.
Jardine Museum, Khajuraho.
St. Xavier's College Museum, **Bombay.**
Puddukottai Museum, Puddukottai, (Madras).
State Museum, Trichur, Cochin.
Jamnagar Museum. Jamnagar.
Victoria Jubilee Museum, Bezwada.
Archæological Museum, Bijapur.
Archaeological Museum, Trichur.
Taj Museum, Agra.
State Museum, Bhuvaneswar.
Museum of Archæology, Sanchi.
Central Asian Antiquities Museum, New Delhi.
Fort Museum, Delhi.
National Museum, New Delhi.
Nalanda Museum, Nalanda (Bihar).
Dhar Museum, Dhar, (M. B.).
Kolhapur Museum, Kolhapur.
Govt. Museum, Trivandrum.
Govt. Museum, Madras.
Govet. Industrial Museum, Calcutta.
Baripada Museum, Baripada. (Orissa).

Gauhati Museum, Gauhati.
Bhuri Singh Museum, Chamba. (Himachal Pradesh).
Faizabad Museum, Faizabad.
Bharat Kala Bhawan, Banaras.
Sir Pratap Singh Museum, Srinagar.
Rajkot Museum, Rajkot,
Bhavnagar Museum, Bhavnagar, (Saurashtra).
Salarjang Museum, Hyderabad.
Raisen Museum, Bhopal.
Sibpur Botanical Garden Harbarium, Sibpur, (Calcutta).
Srichitralayam, (Kerala).
S. M. Museum, Tirupati, (Andhra Pradesh).
Victoria & Albert Museum, Bombay.

VICE-CHANCELLORS OF UNIVERSITIES

Name	*Vice-Chancellors*
Calcutta (1857)	**N. K. Sidhanta.**
Bombay (1857)	T. H. Advani.
Madras (1857)	**Dr. A. Lakshmanaswami Mudaliar.**
Allahabad (1887)	Dr. Sri Ranjan
Lucknow (1921)	K. A. S. Ayer.
Nagpur (1923)	G. B. Badkas.
Patna (1917)	Balabhadra Prasad.
Bihar (1952)	Dr. Dukhan Ram.
Aligarh Muslim (1921)	B. H. Zaidi.
Delhi (1922)	Dr. V. K. R. V. Rao.
Agra (1927)	K. P. Bhatnagar.
Banaras Hindu (1916)	Dr. V.S. Jha.
Andhra (1926)	Dr. V. S. Krishna.
Gorakpur (1957)	B. N. Jha.
Annamalai, Chidambaram (1929)	T. M. Narayanaswami.
Mysore (1916)	Dr. K. V. Puttappa.
Osmania, Hyderabad (1918)	D. S. Reddy.
Kerala (1937)	Dr. John Mathai.
Kurukshetra (1956)	A. C. Joshi.
Utkal (1943)	Dr. Prankrushna Parija.
Jammu & Kashmir Univ. (1948)	A. A. A. Fyzee.
Saugor M. P. (1946)	Dr. D. P. Mishra.
Rajasthan, Jaipur (1947)	G. C. Chatterjee.
SNDT Women's University (1951) Poona	P. V. Thackersey.
Gauhati (1948)	S. K. Bhuyan.
Visvabharati (1951)	K. C. Chaudhury.
Jabalpur (1957)	Pandit Kunjilal Dubey.
Vikram (Ujjain)	Dr. Mata Prasad.
Punjab (1947)	A. C. Joshi.
Karnatak (1950)	D. C. Pavate.
Baroda (1949)	Mrs. Hansa Mehta.
Gujarat (1950)	M. P. Desai.
Poona (1948)	**Dr. R. P. Paranjpe.**
Roorkee, Roorkee (1949)	**Dr. A. N. Khosla.**

Sardar Ballabhbhai Vidyapith (Anand) (1955)	B. D. Patel.
Sri Venkateswara Tirupati, Andhra (1954)	Dr. S. Govindarajulu.
Jadavpur (1955)	T. Sen.
Marathwada, Aurangabad (1958)	S. R. Dongerkery.

UNIVERSITIES OF INDIA

Agra University, Agra : *founded* 1927 : *Type* Affiliating ; *Jurisdiction* Uttar Pradesh (excluding areas of Aligarh, Allahabad, Banaras and Lucknow Universities), Ajmer, Bhopal, Madhya Bharat and Vindhya Pradesh ; *Affiliated Colleges* 79 ; Medium of Instruction : *English and Hindi in B.A. and B.Com., English in others.*

Aligarh Muslim University, Aligarh : *founded* 1921 : *Type* Residential and Teaching ; *Jurisdiction* within a radius of 15 miles from the University Mosque ; *Constituent College* 1. Medium of Instruction : *Urdu in Unani Medicine and Surgery, English in others.*

Allahabad University, Allahabad : *founded* 1887 ; *reconstitution* 1921 ; *Type* Residential and Teaching ; *Jurisdiction* within a radius of 10 miles from the University ; *Constituent Colleges* 4. Medium of Instruction : *English and Hindi in B.A., B.Sc., and B.Com., English in others.*

Andhra University, Waltair : *founded* 1926 ; *Type* Teaching and Affiliating ; *Jurisdiction* Andhra State (excluding area of Sri Venkateswara University) ; *University Colleges* 47 ; Medium of Instruction : *English.*

Annamalai University, Annamalainagar : *founded* 1929 ; *Type* Residential and Teaching ; *Jurisdiction* within a radius of 10 miles from the University. Medium of Instruction : *English.*

Banaras Hindu University, Banaras : *founded* 1916 ; *Type* Residential and Teaching ; *Jurisdiction* within a radius of 15 miles from the main Temple of the University ; *Constituent Colleges* 19 ; 5. Medium of Instruction : *English and Hindi in I.A., I.Sc., I. Com., B. Com, English in others.*

Baroda University, Baroda : *founded* 1949 ; *Type* Residential and Teaching ; *Jurisdiction* within a radius of 10 miles from the University office ; *Constituent Colleges* 4 ; 1. Medium of Instruction : *English.*

Bihar University, Patna : *founded* 1952 ; *Type* Teaching and Affiliating ; *Jurisdiction* Bihar (except Patna Corporation area) ; Attached & Affiliated *Colleges* 62. Medium of Instruction : *Hindi in Undergraduate Classes, English in others.*

Bombay University, Bombay : *founded* 1857 ; *Year of reconstruction* 1928, 1953; *Type* Teaching and Federal; *Jurisdiction* greater Bombay ; *Affiliated and attached Colleges* 42. Medium of Instruction : *English.*

Calcutta University, Calcutta : *founded* 1857 ; *Year of reconstruction* 1951 ; *Type* Teaching & Affiliating ; *Jurisdiction* West Bengal *Attached and afiliated Colleges* 136 ; Medium of Instruction : *English.*

Delhi University, Delhi : *founded* 1922 ; *Year of reconstruction* 1952 ; *Type* Teaching and Affiliating ; *Jurisdiction* Delhi State ; *Teaching Attached and affiliated Colleges* 22. Medium of Instruction : *English.*

Gauhati University, Gauhati : *founded* 1948 ; *Type* Teaching and Affiliating ; *Jurisdiction* Assam and Manipur ; *Affiliated and Attached Colleges* 23. Medium of Instruction : *English.*

Gorakhpur University, Gorakhpur : *founded* 1957 ; *Type* Affiliating.

Gujarat University, Ahmedabad : *founded* 1950 ; *Type*-Teaching and Affiliating ; *Jurisdiction* Saurashtra and Districts of Ahmedabad, Amreli, Banas-Kantha, Baroda (excluding the area of Baroda University), Broach, Kaira, Mehsana, Panch Mahals, Sabar Kantha and Surat ; Attached & *Affiliated Colleges* 41. Medium of Instruction ; *English.*

Jammu & Kashmir University, Srinagar : *founded* 1948 ; *Type Affiliating* ; *Jurisdiction* Jammu & Kashmir State ; *Attached & Affiliated* and Teaching *Colleges* 25. Medium of Instruction : *English.*

Jabalpur University, Jabalpur, M. P.—*founded* 1957. *Type* Affiliating ; Attached and Affiliated Colleges, 17.

Jadavpur University, Jadavpur, Calcutta : *founded* 1955 ; *Type* Residential and Teaching ; Attached and Affiliated colleges, 2.

Karnatak University, Dharwar : *founded* 1950 ; *Type* Teaching and Affiliating ; *Jurisdiction* Districts of Belgaum, Bijapur, Dharwar and Karwar in Bombay State ; *Attached and Affiliated Colleges* 17. Medium of Instruction : *English.*

Kerala University, Trivandrum : *founded* 1937 ; *Type* Affiliating and Teaching ; Attached and Affiliated Colleges, 46.

Kurukshetra University, Kurukshetra : *founded* 1956 ; *Type* Residential and Teaching ;

Lucknow University, Lucknow : *founded* 1921 ; *Type* Residential and Teaching ; *Jurisdiction* within a radius of 10 miles from the Univarsity. Attached and Affiliated Colleges 14. Medium of Instruction: Hindi in B.A., B.Sc., B. Com., English in others.

Madras University, Madras : *founded* 1857 ; *years of reconstruction* 1904, 1923 ; 1929 ; *Type* Teaching and Affiliating ; *Jurisdiction* States of Madras (except area of Annamalai University) and Coorg ; *Attached and Affiliated Colleges* 126. Medium of Instruction : *English.*

Marathwada University, Aurangabad : *founded* 1958.

Mysore University, Mysore : *founded* 1916 ; *Type* Teaching and Affiliating ; *Jurisdiction* Mysore State ; *Attached and Affiliated Colleges* 45. Medium of Instruction : *English.*

Nagpur University, Nagpur : *founded* 1923 ; *Type* Teaching and Affiliating : *Attached and Affiliated Colleges* 28.

Osmania University. Hyderabad : *founded* 1918 ; *Type* Residential and Teaching ; *Jurisdiction* Hyderabad State ; *Attached and Affiliated Colleges* 35. Medium of Instruction : *English* or *Hindustani.*

Punjab University, Chandigarh : *founded* 1947 ; *Type* Teaching and Affiliating ; *Jurisdiction* Punjab, Himachal Pradesh and Pepsu ; *Attached and Affiliated Colleges* 112. Medium of Instruction : *English.*

Patna University, Patna : *founded* 1917 ; *Year of reconstruction* 1952 ; *Type* Residential and Teaching ; *Jurisdiction* Patna Corporation area ; Attached and Affiliated Colleges 10 ; Medium of Instruction : *English.*

Poona University, Poona : *founded* 1948 ; *Type* Teaching and Affiliating ; *Jurisdiction* Districts of Ahmednagar, East Khandesh, Kolaba, Kolhapur, Nasik, North Satara, Poona, Ratnagiri, Sholapur, South Satara, Thana and West Khandesh in Bombay State ; Attached and Affiliated Colleges 33 ; Medium of Instruction : *English.*

Rajasthan University, Jaipur : *founded* 1947 ; *Type* Teaching and Affiliating ; *Jurisdiction* Rajasthan State ; *Attached and Affiliated Colleges* 53. Medium of Instruction : *English and Hindi* for I.A., B.A., I. Com., and B. Com., English in others.

Roorkee University, Roorkee : *founded* 1948 ; *Type* Residential and Teaching ; *Jurisdiction* not defined ; 3. Medium of Instruction : *English.*

Sardar Vallabhhbhai Vidyapith, Vallabhnagar (Anand)—*founded* 1955 ; *Type* Affiliating ; Attached and Affiliated Colleges 4 .

Saugar University, Saugar : *founded* 1946 ; *Type* Teaching and Affiliating ; *Jurisdiction* Districts of Balaghat, Betul, Bilaspur, Chindwara, Drug, Hoshangabad, Jabalpur, Mandla. Nimar, Raipur and Saugar in Madhya Pradesh ; *Attached and Affiliated Colleges* 19. Medium of Instruction : *English* in B.V.Sc.; B.E., (Hons.) ; M.A., M.Sc., M. Com.; Hindi in others.

S. N. D. T. Women's University, Bombay : *Started* 1951 ; *Type* Affiliating and Teaching ; *Jurisdiction* not defined ; *Attached and Affiliated Colleges* 6. Medium of Instruction : *A Modern Indian Language.*

Sri Venkateswara University, Tirupati : *founded* 1954 ; *Type* Affiliating and Teaching ; *Jurisdiction* within a radius of ten miles from Tirumalai, Tirupati ; *Attached and Affiliated Colleges* 12. Medium of Instruction : *English.*

Utkal University, Cuttack : *founded* 1943; *Type* Teaching and Affiliating ; *Jurisdiction* Orissa ; Attached and Affiliated Colleges 19 . Medium of Instruction : *English.*

Viswavarati University, Santineketan : *founded* in 1921 ; *founded* as Statutory University 1951 ; *Type* Teaching ; *Jurisdiction* Santineketan area in Birbhum District of West Bengal ; Attached and Affiliated Colleges 10. Medium of Instruction : *English.*

Vikram University, Ujjain, Madhya Pradesh ; founded 1957 ; *Type* Affiliating.

SCIENTIFIC, RESEARCH INSTITUTES & LABORATORIES

Ahmedabad Textile Industry's Research Association, Naurangpura, Ahmedabad.

Agricultural Research Station, P.O. Sabour, Bhagalpur.

B.C.G. Laboratory, King Institute of Preventive Medicine, Guindy, Madras.

Bengal Immunity Research Institute, 39, Lower Circular Rd., Calcutta.

Birbal Sahni Institute of Palaeobotany, Lucknow.

Bose Research Institute, 93/1, Upper Circular Road, Calcutta.

Botanical Survey of India, Royal Botanical Garden, Sibpur, Howrah.
Central Building Research Institute, Roorkee.
Central Coconut Research Station, Kasaragod, S. Kanara, Madras.
Central Coconut Research Station, Kayangulam.
Central Drugs Laboratory, 110, Chittaranjan Avenue, Calcutta.
Central Drugs Research Institute, Lucknow.
Central Electro-Chemical Research Institute, Allagappa College, Karaikudi.
Central Sugarcane Research Station, Pusa.
Central Leather Research Institute. P.O. Saidapet, Madras.
Central Food Technological Research Institute. Mysore.
Central Glass & Ceramic Research Institute, Jadavpur, Calcutta.
Central Inland Fisheries Research Station, 47/1, Strand Rd., Calcutta.
Central Laboratories for Scientific & Industrial Research, P.O. Jumai Osmania. Hyderabad.
Central Marine Fisheries Research Station, Mandapam, Mad.
Central Potato Research Institute. Patna.
Central Research Institute. Kasauli.
Central Electronics Engineering Research Institute, Pillani.
Central Institute for Research in Indigenous Systems of Medicine, Jamnagar.
Central Livestock Research & Breeding Station, Haringhata, Nadia.
Central Road Research Institute, P.O. Okhla. New Delhi.
Central Salt Research Station, Bhavnagar.
Central Sericultural Research Station, Berhampur, W. Bengal.
Central Vegetable Breeding Station, Kulu, Punjab.
Central Water & Power Research Station, Poona.
Deep Sea Fishing Station, Sir Pheroze Shah Rd., Bombay.
Drug Research Laboratory (Govt.), Jammu.
Forest Research Institute, Dehra Dun.
Forest Research Laboratory, Mallaswaram, Bangalore.
Central Fuel Research Institute, P.O. Jealgora, Dhanbad.
Geological Survey of India, 27, Chowringhee Road, Calcutta.
Government Cottage Industries Institute, Patna.
Government Silk Institute, Bhagalpur.
Govt. Textile Institute. Kanpur.
Haffkine Institute, Parel, Bombay
Indian Association for the Cultivation of Science, Jadavpur, Cal.
Indian Cancer Research Centre, Bombay.
Indian Dairy Research Institute, Bangalore.
Indian Institute of Science, Bangalore.
Indian Central Cotton Committee Technological Laboratory, Bom.
Indian Institute for Medical Research, Calcutta.
Indian Lac Research Institute, Ranchi.
Indian Meterological Department, New Delhi.
Institute of Nuclear Physics, 92, Upper Circular Road, Calcutta.
Institute of Plant Industry, Indore.
Ionospheric Research Station, Haringhatta, Calcutta.
Jute Agricultural Research Institute (Central Jute Committee), Barrackpur.
Jiwanji Industrial Research Laboratory (Govt.), Gwaliar.

Jute Technological Research Laboratory, Tollyganj, Calcutta.
Maharashtra Association for Cultivation of Science, Poona.
Malaria Institute of India, Delhi.
National Chemical Laboratory, Poona..
National Metallurgical Laboratory, Jamshedpur.
National Physical Laboratory, Hillside Road, New Delhi.
Nutrition Research Laboratories, Coonor (Madras).
Pasteur Institute & Medical Research Institute, Shillong.
Pasteur Institute of Southern India, Coonoor.
Pasteur Institute, Patna.
Pathological Laboratories, Sir Pheroze Shah Road, Bombay.
Physical Research Laboratory, Ahmedabad.
Raman Research Institute, Habbal, P.O. Bangalore.
River Research Institute, Anderson House, Alipur, Calcutta.
Research Ovservatory Gulmarg, Kashmir.
Sri Ram Institute of Industrial Research, Civil Lines, Delhi.
Sugarcane Breeding Institute, Coimbatorre, Madras.
Sugarcane Research Station, Shahjehanpur.
Taraporawala Aquarium & Marine Biological Research Station (Govt.), Bombay.
Tata Institute of 'Fundamental Research, Apollo Pier Road Bombay.
Tocklai Experimental Station (Tea), Cinnamara P.O. (Assam).
Zoological Survey of India, 34, Chittaranjan Avenue, Calcutta.

HUMANISTIC INSTITUTIONS

Andhra

Vankateswara Research Institute, Tirupati.

Assam

Dept. of Historical & Antiquarian Studies, Gauhati.

Bihar

Hindi Vidya Pith, Deoghar.
Bihar Research Society, Patna.
K. P. Jayaswal Research Institute, Patna.
Mandar Vidya Pith, Bhagalpur.
Mithila Institute of Post-Graduate Studies & Research in Sanskrit Learning, Darbhanga.
Nalanda Pali Institute, Nalanda, Patna.
Vaishali Prakrit Institute, Muzaffarpur.

Bombay

Anjuman-i-Islam Urdu Research Institute, Hornby Road, Bombay.
Anthropological Society of Bombay, 136, Appollo St., Bombay.
Bhandarkar Oriental Research Institute, Poona.
Bharatiya Itihasa Samshodhaka Mandala, Sadasiv Peth, Poona.
Bharatiya Vidya Bhawan, Chowpetty, Bombay.
C. P. Research Society, Nagpur.
Oriental Institute, Baroda.
Numismatic Society, Bombay.
J. B. Institute of Learning & Research, Bhadra, Ahmedabad.
B. M. Institute of Child Development, Pharmacy College, Navarangpura, Ahmedabad.
D. A. Memorial Institute, Poona.

Dharmakosha Mandal, Wai, Dt. North Satara.
Deccan College of Post-Graduate and Research Institute, Poona.
Gokhale Institute of Politics & Economics, Poona.
Gujarat Research Society, Bombay.
Indian Institute of Education, 11, Horniman Circle, Bombay.
Indian Institute of Philosophy, Amalner, E. Khandesh.
K. R. Cama Oriental Institute, 136, Apollo St., Fort, Bombay.
Kannada Research Institute, Dharwar.
Marathi Sanshodhan Mandal, Thakurdwar, Bombay.
Rajwada Samshodhan Mandal, Dhulia.
Sheth Bholabhai Jeshingbhai Institute of Learning and Research, Bhadra, Ahmedabad.
Shri Forbes Gujarati Sabha, Bombay.
Sri G. K. Institute of Rural Education, Gargoti, Kolhapur.
Tata Institute of Social Sciences, Bombay.
Vaidika Samshodhan Mandal, Poona.
Vachana Mantapa (Kannada Research Institute), Belgaum.

Delhi

Department of Archaeology, New Delhi.
National Archives of India, New Delhi.
Indian Council of World Affairs, New Delhi.
Indian Historical Records Commission, New Delhi.
Indian Philosophical Congress, Delhi.

Madhya Bharat

Scindia Research Institute, Ujjain.

Madras

Kuppuswami Sastri Research Institute, Mylapore, Madras.

Mysore

Oriental Research Institute, Mysore.
Indian Institute of Culture, Bangalore.
Mythic Society, Bangalore.

Punjab

Vishveshwaranand Vedic Research Institute, Hoshiarpur.

Rajasthan

Rajasthan Vishya Vidya Pith, Udaipur.

Uttar Pradesh

Bureau of Psychology, Allahabad.
Ganganath Jha Research Institute, Allahabad.
Hindustani Culture Society, Allahabad.
Indian Political Science Association, Aligarh.

West Bengal

Bangiya Sahitya Parisad, 243/1, Upper Circular Road, Calcutta.
Dept. of Anthropology, Indian Museum, 27, Chowringhee, Cal.
Asiatic Society of Bengal 1, Park Street, Calcutta.
Iran Society, Calcutta.
Mahabodhi Society of India, Calcutta.

ART & LITERATURE IN INDIA

Since Independence, the Government of India and the State Governments have been devoting considerable attention to the development of art and culture. The Central Government have established three Academies: (1) *Sahitya Akademi*, (2) *Sangit Natak Akademi* and (3) *Lalit Kala Akademi* for the furtherance of this cause.

SAHITYA AKADEMI

Sahitya Akademi or the National Academy of Letters was formally inaugurated by the Government of India on 12th March, 1954. The Government of India Resolution which set forth the constitution of the Akadami described it as "a National organisation to work actively for the development of Indian letters and to set high literary standards, to foster and co-ordinate literary activities in all the Indian languages and to promote through them all the cultural unity of the country." Though set up by the Government, the Akadami is to function as an autonomous organisation.

The President of the Akademi is Shri Jawaharlal Nehru and Vice-President Dr. S. Radhakrishnan. The supreme authority of the Akademi vests in the *General Council* which consists of 67 members, made up as follows: The President, the Treasurer, five persons nominated by the Government of India of whom one shall be a representative of the Ministry of Information and Broadcasting and one of the National Book Trust, one person from each of the following 13 States: Andhra Pradesh, Assam, Bihar, Bombay, Kerala, Madhya Pradesh, Madras, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh, West Bengal and one from the State of Jammu & Kashmir; fourteen representatives of the fourteen languages enumerated in the Constitution of India, twenty representatives of the universities of India; eight persons nominated by the Government of India for their eminence in the field of letters and two representatives, each of the Acadamy of Dance, Drama and Music and the Acadamy of Art.

There is an *Advisory Board* for each language consisting of eminent writers and scholars, on the basis of whose advice the programme in the language concerned is formulated and implemented. Besides the 14 languages recognised by the Indian Constitution, the Academi has also recognised English and Sindhi as languages in which its programme is to be implemented.

Current Programme—Among the main items in the Akademi's Current Programme are the following—

1. *Bibliography of Indian Literature (20th Centuary)*—The first volume covering Assamese, Bengali and Gujarati is in the press.
2. *Critical editions of Kalidasa's Works*—Meghaduta edited by Dr. S. K. De has been published and Vikramovasiya edited by Prof. H. D. Velankar is in the Press.
3. *Anthology of Sanskrit Literature*—The volume covering the Epics and Puranas edited by Dr. S. K. De and Dr. R. C. Hazra is in

the Press and the volume covering Buddhist Literature in Sanskrit edited by Dr. Nalinaksha Dutta is ready for the Press.

4. *Histories of Literature*—A history of Malayalam Literature by P. K. Parameswaran Nair has been published. A History of Bengali Literature by Dr. Sukumar Sen is in the press. Histories of Assamese Literature and Oriya Literature by Dr. Birinchi Kumar Barua and Dr. Mayadhar Mansinha are ready for the press.

5. *Anthologies*—Anthologies of Punjabi poetry, of Vaishnav lyrics of Bengal, of one-act plays in Gujarati, selection of Bharati's poems in Tamil and of Rajwade's prose in Marathi have been published.

6. *Bharatiya Kabita*—1953 is published. The second and third volumes covering the years 1954-55 and 1956-57 are in the press.

7. *Whos' Who of Indian Writers*—More than six thousand entries of writers in various languages have been edited and are in the press.

8. *Translations*—A large number of Indian classics and several foreign classics have been translated and published in several Indian languages.

9. *Contemporary Indian Literature*—a symposium covering all major Indian languages. The first edition of 5,000 copies is completely sold out. A second enlarge edition is in the press.

10. *Dictionaries*—A Russian-Hindi Dictionary, compiled and edited by W. R. Rishi has been published. A Chinese-Hindi dictionary and a Tibetan-Hindi dictionary are being planned.

11. *Tagore Centenary*—An exhaustive bibliography of Tagore's Works (including translations) is under preparation. The first volume of select writings of Tagore (original Bengali in Devnagri Script with a glossary) covering 101 poems entitled *Ekottarasati* has been published. The second volume covering short stories, novels, essays is under preparation. These volumes are also being translated in the major Indian languages.

12. *Awards*—The Akademi gives annual awards of Rs. 5,000 each to the most outstanding books published in Indian languages.

SANGEET NATAK AKADEMI

The *Sangeet Natak Akademi* (Academy of Dance, Drama, Music and Films), constituted by a resolution of the Ministry of Education, was inaugurated in January, 1953. The chief objective of the Akademi is to foster and develop Indian dance, drama, music and films and to promote through them the cultural unity of the country. Also, the Akademi co-ordinates the activities of regional organisations, promotes research, sets up training institutions and sponsors festivals and cultural exchanges in the field of dance, drama and music.

Organisational Set-up : The Akademi functions through a General Council, an Executive Board, a Finance Committee and other Standing or *ad hoc* Committees which the General Council or the Executive Board may appoint. The General Council consists of a Chairman, Financial Adviser, Government, one nominee each from the 14 State Governments, two representatives each of Sahitya Akademi and Lalit Kala Akademi, 12 representative chosen in concultation with organisations in the field of Dance, Drama, Music and Films, four persons chosen in consultation with Indian universities, eight eminent persons in the field of Dance, Drama, Music and Films.

General Programme : The main task which the Sangeet Natak Akademi has set itself for the present, is to conduct survey and research in the existing art-forms found in various parts of the country, to record and film them in order to preserve them as part of our cultural heritage, and to publish, or to encourage publication of material about them. The Akademi also aims at developing and popularising these arts by organising and sponsoring Seminars and Festivals, by establishing new institutes or taking over the existing ones whenever possible or desirable, for imparting higher training. For all these purposes the Akademi has given recognition to about 197 organisations and institutions all over the country besides eight State Akademis all over the country and has given grants to carry out their projects.

The Akademi's programme also includes Awards to eminent artistes, for music, folk and classical dance, drama and films.

Activities of the Sangeet Natak Akademi.

A. Music—A seminar on Indian music is organised. It holds National Music Festival. A Committee was appointed to go with the question of evolving a national standardized musical rotation. Efforts are being made to encourage, popularise and develop community singing in the country.

B. Drama—Akademi organises Drama seminer on the future of Indian drama. It sponsors a National Drama Festival. Akademi institutes the awards in the field of drama to be given from time to time for the best play-script and best play presentations. The Akademi has taken over the Asian Theatre Institute, sponsored by the Government of India in 1958.

C. Dance—A seminar of Dance Arts in India is organised by the Akademi. The Akademi took over the administration of Manipur College of Dance at Imphal.

D. Films—A film seminar is organised by the Akademi. A Film library has been started in the Akadami.

E. Awards—The Akademi has instituted various annual awards in different categories in the field of Dance, Drama, Music and Films.

F. Recognition and Financial Assistance—Akademi affiliates and grants recognition to qualified organisations all over the country. So far 197 organisations have been affiliated. It grants financial assistance to institutions and organisations.

G. Folk Art—Steps have been taken to record and film all extant folk-lore under expert hands.

H. Library & Museum—For research and study, the Akademi has started a central library and museum.

I. Publications—Publication grants and subsidies are given to various authors and institutions.

List of Office Bearers

Chairman—Dr. P V. Rajamannar.

Vice-Chairman—Sm. Kamaladevi Chattopadhyay.

Financial Adviser—A. V. Venkateswaran.

Secretary—Miss Nirmal Joshi, Sangeet Natak Akademi, 70, Regal Building, New Delhi.

LALIT KALA AKADEMI

The akademi was inaugurated at Delhi on August 5, 1954. This is a corporate body and would work through a General Council, an Executive Board, a Finance Committee and any other Committee or Committees set up by the General Council or Executive Board.

The primary object of the Lalit Kala Akademi (National Academy of Art) is to encourage and promote study and research in the fields of painting, sculpture. architecture and applied arts. It will also co-ordinate the activities of the regional or State academies, promote co-operation among art associations, encourage exchange of ideas between various schools of art, publish literature on art, and foster national and international contacts through exhibitions, exchange of personnel and art objects.

The Akademi's activities are of a varied nature and fall into several heads, *viz.*, (1) National Exhibition of Art, (2) Exhibitions from abroad, (3) Indian Art Exhibitions abroad, (4) Survey of Folk Arts and Crafts, (5) Copying of frescoes, (6) Publications Programme and (7) Recognition and aid to art organisations.

Seminar on Art Education—The Akademi organises seminar on Art education. The participants include well-known artists, art-historians, critics and art teachers.

Copying of Frescoes—Copies of frescoes have been made of the paintings in Badami caves (1955) of the murals in the palace of the Raja of Rupi, Kulu (1956) and of the frescoes in Sittan vasal, South India (1957). Work of copying painting in Amber and Jaipur is under commission.

Exhibition from Abroad—The first ever Exhibition to be organised by the Akademi was an Exhibition of Canadian paintings. This was followed by—(1) Exhibition of Hungarian Folk Arts, (2) Exhibition of Chinese Handicrafts (3) Exhibition of Polish Arts (4) Exhibition of Contemporary German Art (5) Who was Rembrant.

Exhibition of Indian Art Abroad—Art exhibitions and delegrations are sent abroad for the propagation of Indian art. Art exhibitions and delegations have already been sent to London, Afganistan, Egypt, Turkey, Iraq, China, Japan, Australia, U.S.A., U.S.S.R., Poland, West Germany, Italy and Yugoslavia.

Survey of Folk Art and Crafts—The Akademi has prepared a comprehensive programme of surveying of folk arts and crafts in the various regions of the country. In 1956, survey work was started in West Bengal which is now complete.

Publications Programme—Among the important publications brought out by the Akademi are *Mughal Miniatures, a Portfolio of Contemporary Paintings*, a set of 12 picture post cards in colour mainly of Rajasthani paintings, Krishna Legend in Pahari Paintings.

Portfolio of Ajanta Painting and Mewar Painting have been published. The Akademi also publishes an art journal, *Lalit Kala*, devoted to original articles on Indian Art.

Institutions and Organisations recognised by the Akademi—Indian Institute of Architects, Bombay; Bombay Art Society, Bombay; Art Society of India, Bombay; Sarada Ukil School of Art, 66 Queen's Way, New Delhi; Indian Academy of Fine Arts, Cooper Road, Amritsar; Academy of Fine Arts, 27 Chowringhee Road, Calcutta; South Indian Society of Painters, Museum House, Madras; Model Art Institute, Noor Building, Dadar, Bombay; Progressive Painters' Association, 2 Casa Major Road, Madras; National Art Gallery. Govt. Museum, Madras; U. P. Artists Association, 37 Hazratganj, Uucknow; Kala Kendra, Dehra Dun; Hyderabad Art Society, Hyderguda, Hyderabad; Shilpa Kala Parisad, Govt. School of Arts, Patna; Madhya Bharat Kala Parisad, Gwalior; Panchal Lalit Kala Akadami, Morryn, Simla; Saurashtra Kala Mandal, Rajkot; Delhi Silpi Chakra, Shanker Market, Connaught Circus New Delhi; Rajasthan Lalit Kala Akademi, Mahabir Road, Jaipur; Jammu & Kashmir Academy of Art & Culture, Srinagar; Kala Niketan, Kolhapur, Bombay; Calcutta Art Society, 7 Lindsay Street, Calcutta; Bharatiya Kala Prasarini Sabha, Laxmi Road, Poona; Vijaya Art Institute, Gadag, (Bombay).

CINEMA IN INDIA

HISTORY OF THE FILM INDUSTRY—Since the day Dada Saheb Phalke produced the first Indian film *Harishchandra* in the year 1912, the cinema industry has been making steady progress in India. By 1928, production had reached 80 full-length films per year. The movie gave place to the talkie in the year 1931 when the first Indian talking picture *Alam Ara* was presented to the screen by the Imperial Film Co., Bombay. The conversion of the Indian film industry to sound was more or less complete by 1935. Today India produces 250 to 280 pictures a year and she is the third largest producer of films in the world, but it must be admitted that this huge production is not correlated to a high level of creative excellence. Indian film industry consumes about 200,000,000 feet of raw film every year and employs about 70,000 people in this industry. Besides, it has produced a good field for several auxiliary business like publicity, make-up, etc. Cinema industry occupies eighth place among the industries of India.

Bombay, Calcutta and Madras are the main centres of film production. Over 50 per cent of the pictures are produced in Bombay, the share of Calcutta and Madras varies from 20 to 25 per cent. There are about 65 studios, most of which are located in Bombay, Calcutta and Madras. The producers in India number 600. About 19 million feet of raw film valued at over one crore are consumed here annually.

There are 3,250 cinema houses scattered all over India. It is estimated that about 2,000,000 people see cinema every day all over India.

Language difficulties have always been a major problem. But pictures are generally produced mainly in the following languages, *i.e.*, Hindi, Bengali, Tamil and Telugu, Marathi and Gujarati. Hindi pictures, which have an all-India market, are mostly produced in Bombay ; Bengali films are made in Calcutta, some of which find their way to East Pakistan where majority of the people speak Bengali. Madras is turning out Tamil and Telugu pictures for the vast South Indian market.

FILM ENQUIRY COMMITTEES—In 1928 the first Film Enquiry Committee was appointed by the Government of India with Dewan Bahadur T. Rangachari as Chairman. This committee made the following recommendations—(1) Constitution of All India Board of Film Censors, (2) Formation of a Central Bureau of Advisory Committee, (3) Financial aid to producers, (4) Abolition of Import Duty on raw films, (5) Construction of more theatres, (6) Reduction of entertainment tax, etc.

The second Film Enquiry Committee was appointed by the Government of India in 1949 with S. K. Patil as Chairman and the report was issued in October, 1951.

This Report stated that the industry is not in a position to undertake reform of its own, evils having crept far too deep into the system and defects being far too widespread.

The technical elements in the films have improved in standards, but where intellect and art are involved, the films today exhibit poverty, as the themes are stereotyped and plots monotonously uniform in pattern.

The following are the recommendations of the Committee—(1) the creation of an autonomous statutory *Film Council of India.*

The proposed Film Council of India will act as the industry's 'friend, philosopher and guide' and will provide the necessary inspiration to conduct its affairs on healthy and constructive lines. The Council would set up panels to deal with different activities of the industry as well as research, the manufacture and supply of raw materials. The statutory nature of the Council will enable it to intervene effectively in disputes between different branches of the industry ; in regard to standards of production, however, the Council should function through the Production Code Administration.

Funds for the Council will be raised mainly through a cess on raw cinema film imported into or manufactured in this country, exposed cinematographic film from abroad and 10 per cent of the net income derived from the levy of entertainment tax on the exhibition of films. The proceeds of the cess will be utilised in research and training institutions for the industry.

The Council will run institutes for training of film artistes and technicians. To give a fillip to improved production standards, the Council will award annual prizes for the best story, best direction, best review and the best film.

An Educational Panel of the Council will be charged with the task of encouraging production of educational and children's films.

(2) *Production Code*—As an adjunct to the Film Council, the Committee recommends the setting up of a Production Code Administration. Its Panel of Experts will scrutinise every script and exercise some control over the production. In particular, the PCA

will have to approve the films for export and will have branches at Delhi, Madras, Calcutta and Bombay and will be run by the Government in the initial stage.

(3) *Film Finance Corporation*—The Film Finance Corporation proposed by the Committee will have an initial capital of Rs. 10 million subscribed by the State, industry and public. It may borrow an equal sum, with the approval of the Reserve Bank. "If the film industry is to be rehabilitated, the Committee sees no escape for regulated finance being made available to film producers through the Film Finance Organisation."

(4) *Taxation Relief*—The adoption of a uniform entertainment tax tariff at 20 per cent of the gross takings has been stressed as a dire need by the Committee, with a view to aiding the industry. It has also proposed a review of other miscellaneous fees, like licence fees for operation of cinemas and storage of films.

The Committee has recommended placing on O.G.L. raw film imports up to 240 million feet per annum. The distribution will be done through film associations.

Provision has been made for import also of studio equipment up to Rs. 45,00,000 a year and projection apparatus for replacement and expansion.

(5) *Foreign Markets*—The Committee believes that in addition to expanding present overseas markets for Indian films, it might be possible for them to get into the English-speaking regions. An export corporation has been envisaged to look after this aspect.

No unprocessed film is to be allowed to be sent abroad without the approval of the Production Code Administration.

(6) *Short Films*—In the absence of any regular prospects of the industry producing and exhibiting 'approved films' voluntarily, the Committee feels that the present system of production and distribution of shorts and news-reels by Government should be continued in view of their proved usefulness.

GOVERNMENT OF INDIA'S CONTROL—Department of Information and Broadcasting which for many years was a part of the Department of Home Affairs in the Government of India, has been separated in 1949 under the control of a separate Minister of State. This department is now known as Ministry of Information and Broadcasting and controls everything concerning films in India including Films Division of the Central Government.

FILMS DIVISION—Initially started in 1942 under the name of *Information Films of India*, the organisation ceased to operate in 1946. It was revived in 1948 by our National Government. The Films Division which is a branch of the Ministry of Information and Broadcasting has its headquarters at Malabar Hill, Bombay. There are two distinct departments of the Films Division; one is the documentary section, known as the *Documentary Films of India* and the other is *News Review*. The Films Division is responsible for the production and distribution of news reels and documentary films of the Government for general information and education of the public; coverage and presentation of important and tropical news items bearing on the life and progress of the nation every week, is another important function of the Films Division. While the bulk of documentaries are produced by the Films Division, private producers are also entrusted with the production of films on selected subjects.

The Division consists of the following five distinct sections—*Documentary Section*, *Newsreel Section*, *Distribution Section*, *Public Relations Section* and *Administrative Section*. The films are produced in five languages—English, Hindustani, Tamil, Telugu and Bengali and are released simultaneously all over India, whereas those intended for exhibition through mobile vans are produced also in Gujarati, Punjabi, Assamese, Kannada, Kashmiri, Oriya, Marathi and Malayalam. The exhibition of these films is made compulsory under a condition in the exhibitors' licence and rental is charged approximately on the basis of 1 p.c. of the average weekly net collections.

Selected documentaries and newsreels are sent to the Indian Missions abroad for non-commercial exhibition and are also used in television circuits in U.S. and U.K. Apart from Indian news stories, the weekly newsreel includes foreign news items as well. These stories are received in exchange from U.S.A., France, Holland and other countries.

CHILDREN'S FILMS—The Government of India is taking special interest in the production of films suitable for children. For this propose Children's Film Society was formally inaugurated in Delhi in 1955. The Government grants Rs. 5 lakhs every year for the production of children's film. The society produces approximately two films a year. The principal aim of the Society is to undertake, sponsor, promote, and co-ordinate the production, distribution and exhibition of films specially suited or of special interest to children or adolescents.

FILM ADVISORY BOARD—Government of India have constituted in 1949 a Film Advisory Board to advise the Film Division of the Ministry of Information and Broadcasting. This body has been formed to recommend documentaries and newsreels produced by the Films Division and by the other private producers for certifying them as "approved films" which are required to be shown at every performance by each and every exhibitor in the country. The F.A.B. also acts as an advisory body to the Films Division as regards matters connected with the production of documentaries.

CENSORSHIP OF FILMS—The system of film censorship in India was first evolved under the Indian Cinematograph Act, 1918. By the amendment of this Act in 1949, censorship was made a central subject and Government of India took over the film censorship from 15th Jan., 1951 and constituted a Central Board of Films Censors which is charged with the responsibility of formulating and enforcing an all-India policy for censorship of motion pictures produced or imported in the country.

The Department consists of a Central Board with its Headquarters at Bombay and two regional offices in Calcutta and Madras. The Regional Officers are assisted by members of an Advisory Panel who are appointed by the Government of India. Each film is viewed by an Examining Committee. An appeal lies to a Revising Committee, if the person who has applied for certificate is not satisfied with the decision of the Board A film may also be reported to a Revising Committee by the Chairman on his own initiative Finally an appeal may be made to the Government of India. Each picture presented for censorship is examined of India.

The Board issues two kinds of certificates, one for films for unrestricted exhibition and the other for those to be restricted to adults only; they are respectively referred to as 'U' and 'A' certificates. If any portion of the film is excised, a triangular mark is put on the left-hand bottom corner of the certificate

TAXATION —The industry is now under the following taxations—*Central Government Taxes*—(1) Import duty of raw films at the rate of 3 pies per foot plus 5 p c surcharge on the total, (2) Import duty on cinematographic equipment at the rate of 5 p c *ad valorem* on larger equipments and 10 p c on the smaller ones, plus a 5 p c surcharge, (3) Fees for storage of films for license from chief inspector of explosives This fee is leviable in respect of films with nitrocellulose base, (4) Rentals on Government approved films, the showing of which is compulsory The exhibitors are required to pay rentals ranging from Rs 5 to Rs 150 per week on Films Division shorts, (5) Fees for censorship of films at Rs 40 per 1000 ft (6) Income tax *Taxes by States* (1) *Entertainment tax* This is a tax on admission The tax is levied on the slab system except in Bihar and Madhya Pradesh The rates of tax varies from 25 p c to 75 p c on the cost of admissions (2) *Theatre Tax*—It is a flat rate tax on each show or performance levied in some States, (3) Sales Tax, (4) License fee for operating cinemas and storage of films, (5) Electricity tax (6) Property tax. *Municipal Taxes*—Octroi Duty and Terminal Taxes, (2) Property taxes and license fees, etc, (3) Taxes on posters and other advertisements, (4) License fees & storage of films including safety base films

FILM FEDERATION OF INDIA— This has been established to promote commerce in general and in particular, to promote, protect and watch over the interests of the Indian Film Industry and persons thereof, to regulate their method of doing business, to maintain uniformity in rules, regulations and usages of film industry, to settle disputes by arbitration or otherwise, to take all steps for promoting, supporting or opposing legislation or executive action affecting the economic interest of the film industry and of those engaged thereon

STATE AWARD FOR FILMS—With a view to encouraging production of films of a high aesthetic and technical standard and of educative and cultural value, the Government of India have instituted a *State Awards* for films from 1954

From 1958, the following annual cash awards have also been sanctioned for films—

(1) *for the best feature film winning the President's Gold Medal* —Rs. 25,000, (2) *for the second best feature film*—Rs 12,500; (3) *for the best children's film, winning the Prime Minister's Gold Medal*—

Rs. 25,000 ; (4) for the second best children's film—Rs. 12,500 ; (5) *for the best documentary, winning the President's Gold Medal*—Rs. 5,000 ; (6) *for the second best documentary*—Rs. 2,500.

FILMS DIVISION'S WORK—The total number of documentaries produced by the Films Division during 1956-57 was 67 films compared with 67 documentaries of 1955-56. A unit has been set up for the training of our artists and technicians in the art of cartoon films under the guidance of a foreign expert. Weekly news-reels in five versions—Hindi, English, Bengali, Tamil and Telugu are maintained. Films Division is also participating in the International Film Festivals. Its productions have received awards, such as, *Symphony of Life* was awarded highest prize for experimental film at Montevideo Festival in 1956. *Khajuraho* got a silver carabao Award at Manila Film Festival and *Spring comes to Kashmir* was awarded the Silver Bear Madallion at Berlin Film Festival in 1956. The film entitled *Bharat Darshan* won the award for friendship among nations at Karlovy Vary Film Festival.

INDIAN FEATURE FILMS, 1937-57

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
Hindi	8	92	86	79	97	108	86	73	155	186
Gujarati		1	1	1			–	–	1	11
Marathi	14	12	10	11	13	5	4		2	6
Bengali	19	15	16	18	18	21	14	9	15	38
Tamil	3	3	36	31	19	1	13	11	16	29
Telegu	10	12	14	16	8	6	6	5	10	6
Kanada			–	2	2	4	–	1	—	5
Punjabi	1	7	7	2	5		2	–	1	—
Malayalam	1		1	4	5	2			—	—
Others	—	1		3	1	2	1		—	7
Assamese				–						—
English					—			–	–	—
Persian	—	–		—						—
Urdu		–	—	–	—			–	–	–
Oriya							–	–	–	—

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Hindi	148	157	115	100	102	97	118	120	123	115
Gujarati	28	17	13	6	2	–	–	3	8	—
Marathi	7	15	19	16	17	21	19	12	13	14
Bengali	37	62	42	[illegible]	43	50	48	52	54	54
Tamil	32	21	19	26	32	42	37	46	51	44
Telegu	7	7	18	20	25	29	27	24	27	36
Kanada	2	6	1	2	1	7	10	15	14	14
Punjabi	1	1	4	4		2	3		–	2
Malayalam	1	1	6	7	11	7	8	7	5	7
Others	2	2	4	2		4	5	2	—	—
Assamese	–	—	1		–	1	1	1	3	3
English	—		—	—			—	—	–	1
Persian		—		–	–	—				1
Urdu	–	—	–	—			—		—	—
English	–	—	—	—	–	2	2	1	1	—
Oriya	—	—	—	–	—	1	1	—	2	1

IMPORT OF CINEMA FILMS, EQUIPMENTS, ETC.

(*In lakhs*)

	Raw Film		Exposed Film			
	footage	*value* (in Rs.)	*footage*	*value* (in Rs.)	*Sound recording equipment* (in Rs.)	*Projection value* (in Rs.)
1950-51	2,085.38	125.59	145.37	35.79	9 53	61.94
1951-52	1,981.94	135.55	105.96	28 01	17 58	58.79
1952-53	2,479.41	166.27	126.47	39.49	10 70	25.58
1953-54	2,071.64	154 89	108.55	30 39	7.50	21.52
1954-55	2,041 15	151.18	86.44	22.80	4.57	20.19
1955-56	3,009 69	222.16	121 21	35 10	7.46	43.25
1956-57	2,700 69	206.28	158.61	41.24	--	—

NUMBER OF PERMANENT CINEMAS & TOURING TALKIES IN INDIA 1957

Andhra Pradesh	523	Mysore	361	Andaman & Nicobar Islands	34
Assam	83	Orissa	52	Delhi	34
Bihar	122	Punjab	142	Himachal Pradesh	4
Bombay	790	Jammu & Kashmir	14	Manipur	8
Kerala	241	Rajasthan	76	Tripura	6
Madhya Pradesh	264	Uttar Pradesh	266		
Madras	662	West Bengal	390		
				Total	4034

CINEMA CIRCUITS

Central Circuit -M.P., Madhya Bharat, Rajasthan, Ajmer, Bhopal, Vindya Pradesh and East & West Khandesh, Districts of Bombay Presidency.

North Circuit—Delhi, U.P., Punjab, Pepsu, Himachal Pradesh, and Jammu & Kashmir.

Bengal Circuit- West Bengal, Bihar, Assam, Orissa, Tripura, Berhampur ((Ganjam), Andaman Islands and Nepal.

South Circuit—Madras, Andhra, Mysore, Travancore-Cochin, Hyderabad and Coorg.

Bombay Circuit—Bombay, Saurashtra and Kutch.

FACTS OF CINEMA IN INDIA

1896 First exhibition of cinema in India by Lumiere Brothers, July 7, 1896.

1907 First cinema house opened in Calcutta by J. F. Madan.

1913 First Indian film, *Harishchandra* produced by D. Phalke of Bombay and released at Bombay on April, 1913.

1917 First Indian film produced in Bengal is *Nala Damayanti* by J. F. Madan.

1918 Indian Cinematograph Act passed.

1920 Censorship of films started at Calcutta, Bombay and Madras.

1921 First picture produced in South India is *Bhishma Pratigna*, by Star of the East Film Co.'

1922 Entertainment tax introduced in Bengal.

1987 Government of India appoints a Cinematograph Enquiry Committee.

1929 First talkie exhibited in India was Universal's *Melody of Love* at Elphinstone Picture Palace, Calcutta.

1931 *Alam Ara*, the first Indian talkie by Imperial Film Studio, Bombay released on 14th March, 1951. The second talkie *Shirin Farhad* by Madan Theatre, Ltd., Calcutta.

1931 Prabhat Studio's *Sairendhri* is the first Indian colour film though coloured in Germany. First cine-colour picture done in India was Imperial's *Krishan Kanya*. *Karma* is the first Indian-English film (talkie) by Himansu Rai, the founder of Bombay Talkies but produced mainly in England under European supervision.

1932 Background music introduced for the first time in Chandidas, a Bengali film.

1934	Playback system introduced for the first time in Bhagyachakra, a Bengali film.
1939	Silver Jubilee of the Film Industry in India.
1940	*Court Dancer* is the first full length Indian-English sound film made in this country under purely Indian supervision.
1948	Information Films of India set up by the Government of India.
1949	Appointment of the Film Enquiry Committee by the Government of India.
1949	Censorship of films was included in the Union List in the new Constitution.—Pictures were classified 'A' (for adults only) and 'U' (universal exhibition).
1951	Central Board of Film Censors at Bombay was established on 15th January.
1952	First International Festival sponsored by the Government of India in Bombay on January 24, 1952.
1954	Film Awards inaugurated by the Government of India.
1955	Film Seminar inaugurated at Delhi.
1956	Silver Jubilee of Indian Talkie celebrated throughout India.

ACADEMY AWARDS

'Oscar' is the supreme annual award of the *American Academy of Motion Picture Arts and Sciences.* These coveted Statuettes were first presented on 26th May, 1929, for the leading men and women in various branches of picture-making industry.

		Actor of the Year	*Actress of the Year*
1928	Wings (*Paramount*)	Emil Jennings	Janet Gaynor
1929	Broadway Melody (*M.G.M.*)	Warner Baxter	Mary Pickford
1930	All Quiet on the Western Front (*Universal*)	George Arliss	Norma Shearer
1931	Cimarron (*R.K.O.*)	Leonel Barymore	Marie Dresler
1932	Grant Hotel (*M.G.M.*)	Fredric March	Helen Hayes
1933	Cavalcade (*Fox*)	Charles Laughton	Katherine Hepburn
1934	It happened one night (*Columbia*)	Clark Gable	Claudette Colbert
1935	Mutiny on the bounty (*M.G.M.*)	Victor McLaglen	Bette Davies
1936	Great Ziegfeld (*M.G.M.*)	Paul Muni	Luise Rainer
1937	Life of Emile Zola (*Warner*)	Spencer Tracy	Luise Rainer
1938	You can't take it with you (*Columbia*)	Spencer Tracy	Bette Davies
1939	Gone with the Wind (*Selznick*)	Robert Donat	Vivien Leigh
1940	Rebecca (*Selznick*)	James Stewart	Ginger Rogers
1941	How Green was My Valley (*20th Century*)	Gary Cooper	Joan Fontaine
1942	Mrs. Miniver (*M.G.M.*)	James Cagney	Greer Garson
1943	Casablanca (*Warenr*)	Paul Lukas	Jennifer Jones
1944	Going My Way (*Paramount*)	Bing Crosby	Ingrid Bergman
1945	Lost Week End (*Paramount*)	Ray Milland	Joan Crawford
1946	Best Years of Our Lives (*R.K.O.*)	Frederic March	Oliva de Havilland
1947	Gentleman's Agreement (*20th Century*)	Ronald Colman	Loretta Young
1948	Hamlet (*Arthur Rank*)	Sir L. Olivier	Jane Wyman
1949	All the King's Men (*Columbia*)	Broderick Crawford	Oliva de Havilland
1950	All About Eve (*20th Centuary-Fox*)	Jose Ferrer	Judy Holliday
1951	An American in Paris (*M.G.M.*)	Humphery Bogart	Vivien Leigh
1952	Greatest Show on Earth (*Paramount*)	Gary Cooper	Shirley Booth
1953	From Here to Eternity (*Columbia*)	William Holden	Audrey Hepburn
1954	On the Water Front	Marlon Brando	Grace Kelly
1955	Marty (*United Artists*)	Ernest Borgnine	Anna Magnani
1956	Around the World in 80 days (*20th Century-Fox*)	Yul Brynner	Ingrid Bergman
1957	The Bridge on the river Kwai (*Sam Spiegel*)	Alec Guiness	Joanne Woodward

OSCAR AWARDS, 1957

(Awards by the Academy of Motion Picture Arts & Sciences, U.S.A)

Best Picture—*The Bridge on the river Kwai*
Best Actress Joanne Woodward in *Three Faces of Eve*
Best Actor—Alec Guiness in the *Bridge on the river Kwai*
Best supporting Actor—Red Buttons in *Sayonara*
Best supporting Actress— Miyoshi Umeki in *Sayonara*
Best director—David Lean (*Bridge on the river Kwai*)
Best Music Scoring—Malcolm Arnold (*The Bridge on the river Kwai*).
Best Cinematography—Jack Hildyard (*The bridge on the river Kwai*)
Best Screenplay*—on the material from another medium—Pierre Boulle (***The Bridge** on the river Kwai*)
Best Film editing Peter Taylor (*The Bridge on the river Kawi*)
Best Documentary *Albert Schweitzer*
Best Foreign Film *(non American) Nights of Cabiria (Italian)*
Best Cartoon—Birds Anonymous
Best Sound recording Sayonara
Best live action Short The Wetback Hound
Best song from a film—All the way (Frank Sinatra) in "the Joker is Wild"
Best Story and screen play written for the Screen—Designing Woman by George **Wells.**
Best Costume design Les girls
Best Special Effect The Enemy Below (Walter Rossi)
Best Art Direction Sayonara (Ted Haworth)
Hersholt Humanitarian Award Sam Goldwyn

STATE FILM AWARDS (INDIA)

(For Films of 1957)

Feature Film Awards
President's *Gold Medal for best film* with cash prize of Rs. 25,000 ***Do Ankhen Barah Hath*** (Hindi)
All India Certificate of Merit and cash prize of Rs. 12,500—*Andhare Alo (Bengali)*
All India Certificate of Merit *Mother India (Hindi)*
Prime Minister's Gold Medal for children's film and cash prize of Rs 25,000—***Ham Panchhi Ek Dal Ke (Hindi)***
Certificate of merit for children's film and Cash prize of Rs 12,500—***Janmatithi (Bengali)***
President's gold medal for best documentary with cash prize of Rs 5,000—***Himalayan Tapestry***
All India Certificate of merit for documentary and cash prize of Rs 2,500—***Mandu***
All India certificate of merit for documentary *Dharti ki Jhankar*

Regional Awards · Silver medals for respective languages
Grihadevta *(Marathi)*
Padatha Painkili *(Malayalam)*
Premada Putri *(Kannada)*
Do Ankhen Barah Hath *(Hindi)*
Andhare Alo *(Bengali)*

Regional Awards Certificates of merit for respective languages
Mother India *(Hindi)*
Musafir *(Hindi)*
Lauha Kapat *(Bengali)*
Harano Sur *(Bengali)*
Mudalali *(Tamil)*
Bhagya Rekha *(Telugu)*
Tadi Kodallu *(Telugu)*
Maak Aru Moram *(Assamese)*

CANNES INTERNATIONAL FILM FESTIVAL, 1958

Grand Prix—When the Storks Pass (*Soviet*)
Special Prize— Mon Oncle (*French*)
Prize for directing—Ingmar Bergman for the Swedish film *Nara Livet*
Prize for Original Scenario P. P. Pasolini, Massimo Franciosa and **Pasquale Festa Campanile** for the film Giovani Mariti (*Italian*).

Prize for Collective Female Acting—Eva Dahlbeck, Ingrid Thulin and Bibi Anderson in At the Threshold of Life (*Swedish*)
Prize for Male Acting—Paul Newman in Long Hot Summer (*U S*)
International Prize—Goha (*Tunisia*) and Visages de Bronze (*Switzerland*).

SAN FRANCISCO INTERNATIONAL FILM FESTIVAL, 1958

Best Direction—Satyajit Roy for Aparajita (*Bengali*)
Best Picture House under Rocks (*Hungary*)
Golden Gate Award for best actor—Massino Rigirotti in Road a year long (*Yugoslavia*)
Best Actress—Ruth Leuweril in Taiga (*Germany*)

WEST BERLIN FILM FESTIVAL 1958

Prize of International Catholic film Bureau *Do Aukhen Birah Haath* (*Indian*)
The same picture also won a silver Bear prize
International Film Journalists Association Prize—*Ice Cold in Alex* (*British*)
Golden Bear Award for best film *Smultronts Thellet* (*At the end of the day*) (*Sweden*)
Special Mention *Jaguar* (*Ghana*)

VENICE FILM AWARDS 1958

Golden Lion of St Mark The Rickshaw man (*Japan*)
Best Actor—Gully Jimson in Horse Mouth (*English*)
Best Actress Sophia Loren in *Black Orchid* (*Italian*)
Venice Jury's Special Prize for Directors Louis Malle (*French*) and Francesco Rosi (*Italian*)
St George Prize La Sfida (*Italian*)
International Film Critics Prize—Wolves Lair (*Czechoslovakia*)
Grand Prix (*Jointly*)—*Quiet Flows the Don* (*Soviet*)
Step Brothers (*Japanese*)

VANCOUVER INTERNATIONAL FILM FESTIVAL 1958

Best Award—Pather Panchali (*Bengal*)
Special mention Don Quixote (*Russian*)
Porte Des Lilas (*French*)
Best Documentary City of Gold (*National Film Board*)
Best Children's Film Little Blue Sambo (*Japan*)

NATIONAL BOARD OF REVIEW OF MOTION PICTURES, UNITED STATES, 1958

Best American Film—*Oldman of the Sea*
Best Foreign Film *Pather Panchali* (*Bengal*)
Best Actress Ingrid Bergman in *The Inn of the Sixth Happiness*
Best Actor Spencer Tracy in *The Old man of the Sea and Last Hurrah*
Best Director John Ford for *Last Hurrah*

LAND REFORMS IN INDIA

OBJECTIVE OF LAND REFORMS—Ownership rights of the landlords under the Zamindari system was morally and legally dubious. Naturally, therefore, land reform was the principal aim of the Congress and also of our new Constitution. The Planning Commission recommended that land policy should be such as would reduce disparities in wealth and income, eliminate exploitation, provide security for tenants and workers and promise equality of status and opportunity to different section of the rural population.

The responsibility of enacting legislation on land reforms and adopting steps for their implementation rest with the State Governments. The Government of India, in consultation with the States, lays down the broad national land policy which is kept in view by the State Governments in working out their detailed programme on land reforms. The working of the Central Committee for Land Reforms, which is located in the Planning Commission has helped to maintain a broad common approach in land reform programmes in the States, whose attention has been drawn from time to time to gaps in the implementation of land policy and to the urgency of putting through phased programmes of land reforms.

The main aspects of the land reform programme adopted by the different States are—

(1) abolition of intermediaries and tenancy reforms conferring security of tenure upon tenants fixing fair rents at 1/4th or 1/5th of the produce and leading eventually to the acquisition of ownership of tenants.

(2) Ceiling on land holdings.

(3) Consolidation and prevention of fragmentation of holding and

(4) Development of Cooperative Farming.

The *abolition of intermediaries* has been carried out throughout the country with the exception of a few small pockets. Some measures for security of tenure have been taken in most States. As regards reduction of rent, legislative provisions have been adopted in almost all the states for the regulation of rent, except for Kerala and parts of Madhya Pradesh where rents are still regulated by custom or agreement between landlords and tenants.

Due to the abolition of intermediaries uncultivated lands have been acquired and are being administered by the State or through local agencies such as villege *Panchayats*. As a result, the share of the intermediaries, who controlled about 43 per cent of the cultivated area of the country, has been reduced to about 8.5 per cent. Compensation has been paid or are being paid due to the abolition of intermediaries. With the exception of Jammu and Kashmir, all States abolishing intermediaries have made arrangements for the payment of compensation or are paying them. The total amount of compensation and rehabilitation comes upto 614.78 crores. Uttar Pradesh and Bihar are the two States which carry highest liability regarding compensation.

The action taken in the States for the acquisition of ownership by tenants has followed three patterns—

(1) all tenants have been brought into direct relationship as in U. P. and Delhi.

(2) tenants have been asked to purchase ownership rights by an appointed date, failing which they became liable to ejectment, as in Bombay, and

(3) tenants have been given an optional right to purchase on payment of a price stipulated by law and payable in instalments spread over a period. Provisions on these lines have been made in Punjab, Rajasthan, Himachal Pradesh, and the former States of Hyderabad, Madhya Pradesh and Vindya Pradesh.

The *ceiling on holdings* has two aspects, namely (i) ceiling on future acquisition and (ii) ceiling on existing holding. Ceilings on future acquisition of land have been fixed in the States of Assam, Bombay, Jammu & Kashmir, U. P., West Bengal, Delhi and former States of Hyderabad, Madhya Pradesh, Pepsu and Saurashtra. Legislation for ceiling on existing holdings has been enacted in Assam, Jammu & Kashmir, West Bengal, Himachal Pradesh and the former States of Hyderabad and Pepsu. The Punjab Government have also taken powers to take over land held by owners under personal cultivation in excess of 30 standard acres. Except for some small areas in the former State of Hyderabad and the State of Jammu & Kashmir, the law regarding ceilings has yet to be implemented. In West Bengal, notification has been issued and further steps are being taken. Attention of State Governments has been recently drawn to the need for speedy action with regard to ceiling on existing holding and for its implementation.

Legislation for *consolidation of holdings and prevention of fragmentation of land* has been passed in a number of States, namely, Bombay, Orissa, West Bengal, U. P., Madhya Pradesh, Andhra Pradesh, Punjab, Himachal Pradesh Jammu & Kashmir and Delhi. In Assam, legislative provision exists in the Rural Panchayat Act, 1948 for the prevention of fragmentation of holdings. Legislation has also been enacted in Bihar. Progress in consolidation of holdings have been made in Bombay, Madhya Pradesh, Punjab (including Pepsu), Uttar Pradesh and Delhi. In order to quicken the pace of implementation and to enable the States to expand their programmes for consolidation of holdings, the Government of India have decided to include schemes for consolidation within G. M. F. programmes for purposes of granting financial assistance to the States.

Prevention of Fragmentation—The fragmentation of holdings in India due to ancient laws of inheritance has resulted in the sub-division and fragmentation of holdings to the detriment of agricultural production. Legislation to prevent fragmentation had been undertaken in Bombay, Delhi, Punjab, and Pepsu before the commencement of the First Plan. During the Plan period, Bihar, Hyderabad, Orissa, Rajasthan and Saurashtra enacted legislation regulating transfers and partition with a view to preventing break-up of a holding or diminution in the size of a plot below a certain minimum. In 15 States, legislative measures were adopted in order to prevent excessive fragmentation or sub-division. In M. P., a minimum limit of 15 acres has been fixed in Bhopal and Madhya Bharat areas. The minimum in the Hyderabad of Andhra Pradesh is 2 to 24 acres, 6½ acres in Uttar Pradesh and 8 standard acres in Delhi.

While the progress in land reforms legislation has been generally good, implementation of the lands has lagged behind in some respects. In several States, there has been delay in the enactment of the laws and in some they could not be effectively enforced due to lack of adequate administrative machinery. The Central Committee reviews the progress of land reforms from time to time and brings to the notice of the State Governments further measures which are necessary.

LAND REFORM RESOLUTION OF THE CONGRESS

The following resolution on land reforms was passed by the Indian National Congress in 1959 at Nagpur—

"The Congress is of opinion that : (1) the organisation of the village should be based on the village panchayats and village cooperatives, both of which should have adequate powers and resources to discharge the functions allotted to them. A number of village co-operatives may form themselves into a union. All permanent residents of the village, whether owning land or not, should be eligible for membership of the village co-operative, which should promote the welfare of its members by introducing progressive farming methods and improved techniques of cultivation, developing animal husbandry and fisheries, and encouraging cottage industries. In addition to providing credit and discharging other servicing functions, it will arrange for pooling and marketing the agricultural produce of the farmers and for storage and godown facilities for them. Both the panchayat and the co-operative should be the spearheads of all developmental activities in the village and, more especially, should encourage intensive farming with a view to raising the per acre yield of agricultural produce.

(2) The future agrarian pattern should be that of co-operative joint farming, in which the land will be pooled for joint cultivation, the farmers continuing to retain their property rights and getting a share from the net produce in proportion to their land. Further, those who actually work on the land, whether they own the land or not, will get a share in proportion to the work put in by them on joint farm.

As a first step, prior to the institution of joint farming, service co-operatives should be organised throughout the country. This stage should be completed within a period of three years. Even within this period, however, wherever possible and when generally agreed to by the farmers, joint cultivation may be started.

(3) In order to remove uncertainty regarding land reforms and to give stability to the farmer, ceilings should be fixed on existing and future holdings and legislation to this effect, as well as for the abolition of intermediaries, should be completed in all States by the

end of 1959. This does not mean any ceiling on income, as it is expected that, by intensive cultivation, as well as by additional occupations, rural incomes will rise. Such surplus land should vest in the panchayats and should be managed through village co-operatives. The village co-operative should consist of landless labourers and small peasants.

(4) With a view to assuring a fair return to the tiller, a minimum or floor price should be fixed reasonably in advance of the sowing season with respect to each crop, and arrangements should be made to purchase directly whenever necessary, the crops produced.

(5) The introduction of State trading in wholesale trade in foodgrains is welcomed and should be fully given effect to.

(6) Every effort should be made to bring the uncultivated and waste land into cultivation. The Central Government should appoint a committee to devise suitable measures for the utilisation of this land.

The Congress trusts that the steps indicated above will be taken by the Central and State Governments at an early stage, and that the Congress organisation, in co-operation with others, will help in every way to mobilise mass enthusiasm and arouse initiative and a spirit of self-help in the millions of farmers in the country."

COMPENSATION PAYABLE IN CRORES OF RUPEES

(In Crores of Rupees)

Andhra Pradesh	9.00	Madhya Bharat	13.82
Assam	5.03	Mysore	1.80
Bihar	240.00	Rajasthan	36.00
Bombay	20.89	Madhya Pradesh	2.40
M. P.	5.21	Madras	5.90
Orissa	10.50	Saurashtra	10.20
Uttar Pradesh	178 00	Ajmer	1.67
West Bengal	59.00	Bhopal	0.08
Hyderabad	15.18		
		Total	614.78

CEILINGS ON FUTURE HOLDINGS

Hyderabad State (Former)	3 family holdings (12 to 160 acres)	Madhya Bharat (Former)	50 acres
Assam	50 acres	Pepsu (former)	30 standard acres & 40 acres for displaced persons
Bombay (former)	3 economic holdings (12 to 48 acres)		
Saurashtra	3 economic holdings		
Delhi	30 standard acres	Uttar Pradesh	30 acres
Jammu & Kashmir	22¾ acres	West Bengal	25 acres

CEILINGS ON EXISTING HOLDINGS

Hyderabad (*former*)	4½ family holdings (i.e., 18 to 270 acres of land	Jammu & Kashmir	22¾ acres
Assam	50 acres	Pepsu (Former)	30 standard acres & 40 standard acres for displaced persons
Himachal Pradesh	30 acres in Chamba and land assessed at Rs. 125 in other areas	West Bengal	25 acres

PUBLIC SERVICES IN INDIA

Public Service Commission—The Constitution of India provides for the setting up of Public Service Commission for the whole of India and also for each State. Two or more States may have a common Public Service Commission. Union Public Service Commission is an independent statutory body under Article 315 (1) of the Constitution of India. The Union Public Service Commission may also work for a State with the approval of the President of India. The President appoinnts the Chairman and the members of the Union Public Service Commission or of a Joint Commission. In the case of a State Commission, the Governor appoints the President and the members. The Chairman or any of the members of a Public Service Commission can be removed from office only by an order of the President and after an enquiry by the Supreme Court of India. Article 319 of the Constitution debars the Chairman from further employment either under the Government of India or the Government of a State. There are also other Service Commissions apart from Central or State Public Service Commissions, such as Municipal Public Service Commissions in three Municipal Corporations of India and Railway Service Commissions for Railways of India. The Union Public Service Commission is related to the Government of India through the Ministry of Home Affairs but in its day to day work, it deals directly with the different Ministries and Departments of the Government of India.

As nearly as may be, one half of the members of the Commissions are persons who on the dates of their respective appointments have held office at least ten years either under the Government of India or under the Government of a State. A member of the Commission holds office for a term of six years from the date on which he enters upon his office or until he attains the age of sixty-five years, whichever is earlier. He may, by writing under his hand addressed to the President resign his office. The Chairman or a member of the Commission can be removed from the office only by the order of the President under the following circumstances—(1) on the ground of misbehaviour (2) if he is adjudged insolvent (3) if he engages during his term of office in any other paid employment (4) unfit to continue in office py reason of infirmity of mind and body.

Procedure of Service--Public Service Commissions conduct examinations for the recruitment of Union and State Services. They are empowered to interview candidates for fresh ap-appointments and promotion. The Commissions also advise their respective Governments on disciplinary cases and service matters generally. It is obligatory on the part of the Union Government and State Governments to consult their respective Commissions an all matters relating to methods of recruitment to Civil service and posts, on the principles to be followed in making appointments, promotions and transfers from one service to another, on all disciplinary matters affecting a Government servant, on any claim by or in respect of person who is serving or has served the Government, and on any claim for the award of a pension in respect of injuries received by a Government servant while on duty.

The Union Public Service Commission submits its annual report of its work to the President who is required to place it before the Parliament.

Conditions of Service—Regarding All-India Services, such as I. A. S. and I. P. S., Parliament has the authority to regulate, by law, the recruitment and the conditions of services for these services. Accordingly, the All-India Services Act was passed by Parliament in 1951. Under the Article 311 of the Indian Constitution, no member of a civil or All-India Service can be dismissed or removed by an authority subordinate to that by which he was appointed. Before any one is dismissed or removed, reasonable opportunity must be given to the party to defend himself. This privilege is, however, denied to those who are convicted of a criminal offence or when the dismissing authority is satisfied that it is not possible to give the offender an opportunity to defend himself or where the President or the Governor is satisfied that for the security of the State, it is not proper to allow opportunities for defence

Training—The I. A. S. Training School at Delhi and the Central Police Training School at Abu train recruits to the Indian Administrative Service and the Indian Police Service respectively. There is also a Secretariat Training School. A new College known I.A.S. Staff College for imparting training to I.A.S. officers was opened Simla in 1948.

Methods of Examinations—All the examinations are conducted at suitable centres for the convenience of the candidates. The candidates competing for the All India Services and the Central Services have also to appear at a personality test after they have qualified in the written test. The marks secured in the personality test would be added to the marks obtained. Candidates would be ranked on the basis of the total marks.

Important Functions of the Commission—Some of the important functions of the Commission are as follows—

1. Examinations

(A) *Indian Administrative Service and Allied Services, Combined Competitive Examination for Recruitment to—*

(1) Indian Administrative Service.
(2) Indian Foreign Service.
(3) Indian Police Service.
(4) Indian Audit and Accounts Service.
(5) Indian Customs & Excise Service.
(6) Indian Defence Accounts Service.
(7) Indian Railway Accounts Service.
(8) Indian Income-Tax Service, Class I.
(9) Indian Postal Service Class I.
(10) Military Lands and Cantonments Service Classes I & II.
(11) Transportation (Traffic) and Commercial Departments of the Superior Revenue Establishment of Indian Railways.
(12) Central Secretariat Service, Grade III, Assistant Superintendents (Class II Gazetted).

(B) *Engineering Services Examination for recruitment to—*

(1) Indian Railway Service of Engineers.
(2) Signal Engineering Dept. of the Superior Revenue Establishment of Indian Railways.
(3) Electrical Engineering Dept. of the Superior Revenue Establishment of Indian Railways.
(4) Mechanical Engineering and Transportation (Power) Departments of the Superior Revenue Establishment of Indian Railways.
(5) Central Engineering Service, Class I & Class II.
(6) Central Electrical Engineering Service, Class I & Class II.
(7) Telegraph Engineering Service, Class I.
(8) Telegraph Traffic Service, Class II.
(9) Military Engineering Service, Class I.
(10) Indian Ordnance Factories Service, Class I.

(C) *Survey of India, Class I & Class II Service Examination.*

(D) *Examination for recruitment of Special Class Railway Apprentices in the Mechanical Engineering and Transportation (Power) Departments of the Superior Revenue Establishment of Indian Railways.*

(E) *Defence Services Examinations for admission to—*

(1) National Defence Academy.
(2) Military College.
(3) Indian Air Force, Flying College.
(4) Commissioned Ranks of the Indian Navy.

(F) *Army Medical Corps Examination.*

(G) *Ministerial Services Examination for recruitment of—*

(1) Assistants in the Government of India Secretariat and its attached offices.
(2) Lower Division Clerks in the Government of India Secretariat and its attached offices.
(3) Stenographers in the Government of India Secretariat and its attached offices.

(H) *Typewriting tests for Ministerial Staff of the Secretariat and Attached Offices.*

2. **Direct Recruitment by Interview**—There is a large number of posts in the Government of India for which more or technical, scientific or specialised person has to be obtained for responsible duties. The recruitment for such posts cannot be filled up by promoting persons already in any organised service. So recruitment is made by a system of competitive interview conducted by the Commission. The prospective candidates are called through advertisements in the important daily newspapers.

3. **Promotion**—Many senior posts are filled by promotion of officers who have gained experience in junior posts in those services. Recommendations for such promotion are made by a departmental promotion committee consisting of a Member of the Commission as Chairman and senior officers of the Ministry or Department concerned and are then placed before the Commission for final rectification.

4. **Temporary Appointments and Reemployment**—The Commission is consulted for temporary appointments for periods exceeding one year but not exceeding three years and re-employment of government servants who have attained the age of superanuation.

5. **Disciplinary Actions**—The Commission is consulted before orders are passed by the President imposing any penalty on a Government servant. The Commission is also consulted before the President passes an order on an appeal, petition or memorial against any disciplinary order passed by any authority subordinate to the President.

6. **Quasi-Permanancy Cases**—Under Central Civil Services (Temporary Service) Rules 1949, temporary, employees are declared quasi-permanent on the completion of three years of approved service, provided they are within the age limits and have necessary qualifications. This quasi-permanency has to be granted by the Government in consultation with the Commission.

7. **Reimbursement of Legal Expenses**—The claims for reimbursement of the legal expenses incurred by Government servants in defending themselves are referred to the Commission under Article 320 (3) (d) of the Indian Constitution.

8. **Extraordinary Injury Pensions**—The Commission is required to be consulted on any claim in respect of injuries sustained by Government servants in a civil capacity and any question as to the amount of any such award.

Central Secretariat Service

This service includes all posts in the Central Secretariat from an assistant upto an Under Secretary, except those which are specifically excluded with the consent of the Ministry of Home Affairs. In addition, it includes posts in the attached offices which the Ministries administratively concerned with such posts as well as the Ministries of Finance and Home Affairs agree to include. The service is now organised into four grades—Recruitment of Grade I (Under Secretary) is made entirely by selection of officers from Grade II (Superintendent) on the advice of the Central Establishment Board. Recruitment to Grade II is made by promotion from among the permanent members of Grade III (Assistant Superintendent). Half the number of vacancies in Grade III are filled by direct recruitment on the results of the combined competitive examinations held for I.A.S. and other Central Services and the remaining by promotion from Grade IV (Assistant). A new Selection Grade has also been created and persons appointed by this Grade are normally expected to hold posts of Deputy Secretary in the Central Secretariat and other departments of the Government.

Relaxation of Qualifications for Services

In was announced in the Lok Sabha on 21st August, 1958 that the Government had decided to do away with the University degree for all clerical, Central Class III and State Subordinate non-clerical services. However, condidates appearing for the Upper Division and Central Class III non-clerical services should possess the intermediate, senior Cambridge, higher secondary certificate or equivalent qualifications. The age limit for such candidates had also been revised. For clerical services, the age prescribed was 18 to 21 years, while for Central Class III and State subordinate non-clerical services—to enable graduates to compete—it was 19 to 23 years.

A University degree would continue to be an essential qualification for other services, all-India and Central Class I, Central Class II (gazetted and non-gazetted), State Class II (Gazetted) and State Subordinate (Gazetted) services. However, for Central Class II (non-gazetted) and State Subordinate (Gazetted) services, the age limit was fixed at 20 to 24. In the case of State Class II (Gazetted) it was 21 to 24 years.

The Government had also decided to permit no candidate to appear more than twice at any open competitive recruitment examination.

Pay and Scale of some Services

I.A.S. and Indian Foreign Service.

Junior Scale—350—400—450—500—540—50—600—E.B—30—870—40—950(19 years)

Senior Scale—800 (6th year or under)—50—1,000—60—1300—50—1,800 (25 years)

Indian Police Service.

Junior Scale—350—350—380—380—30—590—E. B.—30—770—40—850 (19 years).

Senior Scale— 600 (6th year or under) 40—100—1000—1050—1100,—1100—1150 (22nd year)

Selection grade—1,250.

THE FIVE-YEAR PLANS

FIRST FIVE-YEAR PLAN

The Planning Commission was set up in March 1950 by a resolution of the Government of India which was entrusted with the task of preparing a plan for the "most effective and balanced utilisation of the country's resources." The Commission published India's first Five-Year Plan in its final form in December, 1952. It covered the period from April 1952 to March 1956. The outlay in the Plan originally stood at Rs. 2,069 crores. Later, the Plan was enlarged raising the investment by Rs. 2,356 crores.

OBJECTIVE OF THE PLAN—The central objective of planning in India is to raise the standard of living and opening to the people opportunities for a richer and more varied life. It must, therefore, aim both at using more effectively the available human and material resources and at reducing inequalities of income, wealth and opportunity. Although in the initial stages of the Plan, the emphasis must be on the increasing production, planning should not be confined to stimulating economic activity within the social and economic framework ; the framework itself had to be remoulded so as to secure progressively for all members of the community full employment, education, security against sickness and other disabilities and an adequate income.

While India's population had increased by 52 per cent during the course of five decades, the increase in agriculture and industrial production was less than proportionate.

The level of consumption, private incomes and savings were all extremely low. Shortages were universal. There were not enough of food to go round, not enough houses to meet the needs of an expanding community. The prices of essential commodities were rising steadily ; on the other hand, the partition of India caused considerable damage to India's economy.

Before any real increase in the standards of life becomes possible, agriculture must be rationalised and industry put on more secure foundation ; and a better relation between the two spheres so ordered, that opportunities for employment in industry would grow, and relieve chronic under-employment in agriculture. So the Planning Commission in 1950 was asked to draw up a plan which would lead to the "most balanced and effective use of our national resources."

SOURCES OF FINANCE—The finances of the plan are to be available from following resources—(1) Budget is expected to yield a revenue surplus of Rs. 1,300 millions during the five-year period. (2) Development fund available from the revenue account of the annual budget. (3) Public loans. (4) Small savings. (5) Contribution from the railway development fund. In all, the total resources at the disposal of the Centre would amount to Rs. 6,410 millions while the funds that the States can raise is estimated at Rs. 4,800 millions. The increased revenue of the States would come from land taxes and estate duties, sales tax, betterment levies, etc. This still leaves a gap of Rs. 3,720 millions. The 'counterpart funds of the U.S. food loan to India were also being used to finance developments. These funds were the rupee proceeds from the sale of U.S. wheat in India. Canada and Australia had also promised assistance under Colombo Plan. If necessary, the Government would draw from the Sterling Balances to the extent of Rs. 2,900 millions.

OUTLAY OF THE FIRST PLAN : DISTRIBUTION BY MAJOR HEADS

	Total Provision in Crores of Rs	*P.c. of the total*
Agriculture & Community Projects	357	15.1
Irrigation and Powers	664	28.1
Industries & Mining	179	7.6
Transport & Communications	557	23.6
Social Services	533	22.6
Miscellaneous	69	3.0
	2,356	100.0

The actual outlay in the public sectors over the five-year period was about Rs. 1,960 crores or 17 p.c. less than the revised target of Rs. 2,356 crores. Agricultural development, along with irrigation and generation of electric power had the highest precedence during the First Plan Period. The development of transport and communications also received high priority.

SECOND FIVE-YEAR PLAN

Objectives

The central objective of the Second Plan covering the period from April 1956 to March 1961 was submitted to Parliament on May 15, 1956. Its objective is the promotion of rapid and balanced economic development. Within the broad approach, the Plan has been formulated with the following main objectives—

(i) an increase of 25 per cent in national income so as to raise the level of living in the country.

(ii) rapid industrialisation with particular emphasis on the development of basic and heavy industries ;

(iii) a large expansion of employment opportunities ; and

(iv) reduction of inequalities in income and wealth and a more even distribution of economic power.

The Second Plan is in one sense a continuation of the process of development commenced in the First Plan, but there is inevitably a shift of priorities, with accent on industrialisation, particularly on heavy industries and transport.

Outlay and Allocations—The development outlay of the Central and State Governments amounts to Rs. 4,800 crores over the period of the Second Plan, as compared to the target of Rs. 2,356 crores under the First Plan, though actual outlay was Rs. 1,960 crores under the First Plan.

The Second Plan is one sense a continuation of the process of development commenced in the First Plan, but there is inevitably a shift of priorities, with accent on industrialisation on heavy industries and transport.

Of the total outlay of Rs. 4,800 crores, Rs. 2,559 crores represent expenditure to be incurred by the Centre and Rs 2,241 crores by the State Governments.

DISTRIBUTION OF PLAN OUTLAY BY MAJOR HEADS OF DEVELOPMENT

(In Crores of Rupees)

	1st Plan (Total)	*Second Plan*		
		Centre	*States*	*Total*
1. **Agricultural & Community Development**	357.0	65.0	502.7	567.7
(a) *Agriculture*	241.0	38.0	302.6	340.6
Agricultural programmes	197.0	17.5	152.1	169.6
Animal husbandry	22.0	5.8	50.2	56.0
Forests	10.0	6.4	40.3	46.7
Fisheries	4.0	3.8	8.0	11.0
Co-operation	7.0	8.9	43.2	47.1
Miscellaneous	1.0	0.6	8.8	9.4
(b) *National Extension & Community Projects*	90.0	12.0	188.0	200.0
(c) *Other Programmes*	26.0	15.0	12.1	27.1
Village Panchayats	11.0	—	12.1	12.1
Local development works	15.0	15.0	—	15.0
2. **Irrigation & Power**	661.0	105.0	807.8	912.8
Irrigation	384.0	—	381.0	381.0
Power	260.0	—	426.8	426.8
Flood Control & other projects, etc.,	17.0	105.0	—	105.0
3. **Industry & Mining**	179.0	747.3	142.5	889.8
Large & Medium Industry	148.0	596.2	21.1	617.3
Mineral developments	1.0	70.8	1.7	72.5
Village & small industries	30.0	80.3	119.7	200.0
4. **Transport & Communications**	557.0	1,202.5	182.4	1,384.9
Railways	268.0	900.0	—	900.0
Roads	130.0	82.0	164.1	246.1
Road Transport	12.0	3.0	13.5	16.5
Port & harbours	34.0	43.5	1.8	45.3
Shipping	26.0	46.0	1.5	47.5
Inland water transport	—	3.0	—	3.0
Civil air transport	24.0	43.0	—	43.0
Other transport	3.0	6.0	1.4	7.4

	1st Plan	*Second*	*Plan*	
	(Total)	*Centre*	*States*	*Total*
Posts & Telegraphs	50.0	63.0	—	63.0
Other communications	5.0	4.0	—	4.0
Broadcasting	5.0	9.0	—	9.0
5. Social Services	533.0	395.8	548.7	944.5
Education	164.0	95.0	212.0	307.0
Health	140.0	90.0	183.8	273.8
Housing	49.0	46.0	73.2	120.0
Welfare of backward classes	32.0	32.0	58.5	90.5
Social Welfare	5.0	19.0	10.0	29.0
Labour & Labour Welfare	7.0	18.0	12.2	29.2
Rehabilitation	136.0	90.0	—	90.0
Schemes for educated		5.0	—	5.0
unemployed	—	43.5	56.8	100.3
6. Miscellaneous	69.0			
Grand Total	2,356.0	2,559.1	2,240.9	4,800.0

COMMUNITY DEVELOPMENT PROJECTS

The Objectives of Community Development—The concrete plans for the Community Development Project and other rural development programmes were formulated in 1952 and inaugurated on Mahatma Gandhi's birthday Anniversary, Oct. 2, 1952. The programme seeks to change the outlook of the Indian villagers through entirely peaceful and democratic processes, so that they, on their own, plan and implement schemes for their individual and collective welfare, the Government offering only guidance and assistance. It is thus a programme of aided self-help. The programme was inaugurated with 55 community projects, each covering about 300 villages.

The general objective of these activities is to develop the social and economic life of the community by providing essential amenities for the villagers and rebuilding good life for village communities through the people's initiative and participation and with Governmental assistance. The diverse fields in which activities were planned consisted of Agriculture, Communications, Education, Health, Training, Cottage Industries and Subsidiary Employment, Housing and Social Welfare.

The scope of the Community Development Project was enlarged by the addition of a less intensive scheme called the *National Extension Service*. Community Deveolpment is the method and the

National Extension Service is the agency through which transformation of the social and economic life of India and its villages is sought to be achieved. Each Community Development Project covers an area of about 500 sq. miles with about 300 villages and a population of about 2 lakhs. The agriculture receives the higher priority in the programme.

The basic aims of the community development may be summed up as follows—(1) increase of agriculture, (2) tackling of unemployment problem in the rural areas, (3) improving village communications, (4) fostering primary education, public health and recreation in the villages, (5) improving housing, (6) promotion of indigenous handicrafts and small scale industries. Under the second Five-Year Plan increasing attention is also being given to (1) development of cottage and small scale industries, (2) development of co-operatives, (3) promotion of *Panchayats* as the basic institution of Local Self-Government, (4) improved village communications, (5) promotion of education, health and recreation in the villages and (6) provision of improved techniques and designs for rural housing in rural-cum-urban areas.

The Administration—The Ministry of Community Development is responsible for overall control of planning, directing and co-ordinating Community Development activities throughout India. The basic policy matters are referred to the Central Committee, consisting of the members of the Planning Commission, the Ministers for Food and Agriculture and Community Development under the Chairmanship of the Prime Minister. Implementation of programmes is the responsibility of State Governments. Each State has a single authority known as "State Development Committee" consisting of the Chief Minister as the Chairman, the Ministers for Development Departments as members and the Development Commissioner as Secretary. The Development Commissioner co-ordinates all the activities of the development departments. The Collector is the Chairman of the District Planning or Development Committee. At the block level, there is Block Development Officer who is assisted by a team of experts in agriculture, co-operation, animal husbandry, cottage industry, etc. There is also Village Level Worker with multi-purpose functions in charge of about 10 villages.

The Ministry of Community Development has ten Centres for imparting instruction in social education at Allahabad, Santinekatan, Hyderabad, Gandhigram, Udaipur, Baroda, Belur Math (West Bengal), Coimbatore, Gargoti and Kasturbagram (Indore). These centres are run by non-official agencies with grants-in-aid from the Government of India under the overall supervision of this Ministry.

The subordinate offices of the Ministry are (1) *Social Education Organisers' Training Centres, Nilokheri and Ranchi.* These Centres provide for theoretical and practical training to the trainees in the fields of social science, rural economics, adult education, civics, co-operatives, etc., etc. Both the centres are run directly under the control of this Ministry. (2) *Development Officers' Training Centres at Nilokheri, Ranchi and Hyderabad* were established to train officers in charge of the Community Project Blocks.

Central Institute for the Study in Community Development—The Central Institute for Study and Research in Community Development has been established by the Government of India for applying itself to the task of giving higher training to key personnel, administrative as well as technical, of State and Central Governments, particularly in group methods and the sociological aspects of the programme which they are operating. The Institute has been set up to provide facilities for study in economics, public administration, political science, sociology, etc., and their special bearing on the subject of Community Development.

Finance—The finances for these Development Projects are drawn both from the people and the Government. The Centre's contribution will amount to half of the total expenditure subject to a maximum of Rs. 6 crores per year. Towards the implementation of this programme, India is receiving assistance from the United States of America. Under the Operational Agreement No. 8 of the Community Development Programme and the supplements thereto, the U. S. Government agreed to make available from the *Indo-American Technical Co-operation Fund*, a sum of Rs. 14.27 million dollars for the import of equipment required for Community Projects taken up in India during 1952-53 to 1957-58. From the beginning, the *Ford Foundation* has been assisting India in training thousands of project workers. Ford Foundation also provided assistance in the launching of 15 pilot projects for rural development. Till September 1956, the value of the people's contribution to this programme by way of land, cash and labour amounted to Rs. 45.6 crores as against an actual expenditure of Rs. 75.2 crores by the Government.

NUMBER OF BLOCKS

	No. of Blocks alloted	*No. of Blocks started*	*Villages covered by Blocks*	*Population in lakhs*
Intensive Dev. Blocks				
1952-53	206	206	27,385	169
1954-55	56	56	8,584	42
1955-56	152	152	21,438	124
1956-57	250	250	36,017	186
1957-58	189½	189½	25,530	112
N. E. S. Blocks				
1954-55	19½	19½	2,893	18
1955-56	187	187	27,261	138
1956-57	495	495	66,911	333
1957-58	597	597	60,004	372
Total	2,152	2,152	2,76,026	1,494

Some of the achievements of the Programme—(1) 42 special multi-purpose Blocks have been started in Tribal Areas for intensive development. (2) Nine major Industrial Estates and 20 of the small and rural type of Industrial Estates have been started in CD Blocks. (3) Under the first phase of the Village Housing Scheme. one hundred Rural Housing Projects have been set up in 100 Blocks. (4) 59,000 new Co-operative Societies were started upto June 30, 1957. (5) Chemical fertilizers have been distributed and Agricultural demonstrations held. Improved seeds have been distributed. Large areas have been brought under fruits and vegetable cultivation. (6) 5,326 key village centres have been started with pedigree animals and pedigree birds. (7) Large additional areas have been brought under irrigation. (8) Large number of primary health centres, maternity and child-welfare centres and wells have been constructed. (9) Large number of new schools, and adult education centres have been started. (10) Large number of pucca and kutcha roads have been constructed. (11) Many production-cum-training centres have been started.

NATIONAL EXTENSION SERVICE

Alongside the Community Development Project, the Government of India started National Extension Service from 1953. This is a programme somewhat less intensive in character. This is called N. E. S. in brief. It is designed to provide the essential basic staff and a modicum of finance with which the people could initiate work on a relatively less intensive programme. Out of these N. E. S. blocks, however, selection is made periodically for converting them into Community Development blocks, i.e., for intensifying the development work there. The programme has been so phased that an N. E. S. block gets converted into a Community Development block after three years of its existence. And, on the termination of the three-year period of intensive operation, the Community Development block reverts to the N. E. S. pattern and comes under the perview of development departments of the Government. Another objective in establishing the N. E. S. was to create an organisation for rural development with which the existing Government machinery could be integrated.

ATOMIC ENERGY IN INDIA

Birth of Atomic Energy in India—In the field of atomic research, India is now maintaining the lead among the countries in Asia. Under the Industrial Policy Resolution of 1948, atomic energy in India was made the exclusive subject of the Government. India created an Atomic Energy Commission as early as in 1948 to lay the foundation of the country's atomic development. It deals with all matters connected with the development and production of atomic energy. Its immediate aims were the promotion of nuclear research, the survey, prospecting and processing of raw materials and setting up of an experimental reactor. India's long-term objective is to generate power from atomic energy to light the countryside, to turn her industries and supply tools to science to improve agriculture and to fight disease. The basic work was at first largely concentrated in the Tata Institute of Fundamental Research, Bombay, which since its establishment in 1945 had trained up a group of scientists in nuclear physics and associated experimental techniques. Important work has also been done at the Bose Institute and the Institution of Nuclear Physics in Calcutta, and the research centres at Aligarh, Ahmedabad, and Gulmarg in Kashmir.

Department of Atomic Energy—The Atomic Energy Commission was set up in 1948 with the object of developing and harnessing atomic energy for peaceful purposes in India. This Commission formed a part of the Ministry of Natural Resources and Scientific Research. As a result of the successful activities of the Commission, it was felt that the country was at last in a position to embark upon large-scale industrial projects in the field of atomic energy. So the Government of India set up a separate Department, known as *Department of Atomic Energy* in August 1954 under the charge of Prime Minister. All the business of the Government of India relating to atomic energy under the Atomic Energy Act, 29 of 1948, previously transacted in the Ministry of Natural Resources and Scientific Research have been transferred to this Department. The Department is located at Bombay. The Atomic Energy Commission now functions under the Department of Atomic Energy.

This Department consists of—(*a*) Main Secretariat of the Department of Atomic Energy, Bombay (*b*) Branch Secretariat, New Delhi (*c*) Atomic Energy Establishment consisting of Physics and Engineering Groups, Chemistry Group, Biology Division, Medical and Health Division, Information Division and Raw Materials Division.

Progress of Atomic Energy—Since the establishment of the Department of Atomic Energy in August, 1954, research and development in the peaceful uses of atomic energy have made important and rapid stride. A greatly expanded programme is envisaged for the future, in the course of which India should be able to produce all the basic materials required for the utilization of atomic energy and build a series of atomic power stations, which will contribute increasingly to the production of electric power in the country. These developments call for an organisation with full authority to plan and implement the various measures on sound technical and economic principles and free from all non-essential restrictions or needlessly inelastic rules. For this reason, the *Atomic Energy Commission* under the Department of Atomic Energy has been established with full executive and financial powers, modelled more or less on the lines of the Railway Board. This Atomic Energy Commission is responsible for formulating the policy of the Department of Atomic Energy for the consideration and approval of the Prime Minister and for preparing the budget of the Department of Atomic Energy.

Over 800 Indian scientists and technical personnel are working for Atomic Energy Establishment Almost all the instruments and electronic components that are needed for in nuclear energy work are being made in Trombay Establishment.

The Trombay Establishment (whose work is split up into 14 divisions which in turn grouped into four main groups · the physics, chemistry, engineering and biology divisions) includes India's first reactor, *Apsara*, the radio-chemistry laboratory and thorium processing plant. Nearing completion are the Canada-India reactor, *Zerlina*, a zero energy reactor, a uranium metal plant and plants for processing fuels and moderators.

Apsara, India's first atomic reactor, which went into operation 2½ years ago (August 4, 1956), is proving a very useful facility for research in many fields. It is the first reactor to go into operation in Asia, outside the USSR. It was designed, engineered and built entirely by Indian scientists and engineers and by Indian industry, except for the fuel elements. The fuel elements (convex plates of enriched uranium alloyed with aluminium and canned in aluminium) have been provided by the U.K. atomic energy authority.

This small-sized reactor, which cost Rs. 35 lakhs, is producing radio-isotopes which are already being extensively used by Indian agriculture, medicine and industry, and research workers at the universities Apsara is the nation's principal facility for training personnel in reactor technology and for fundamental research in physiques, engineering and biology, which require the use of strong fluxes of neutrons.

India's third research reactor will be the Rs. 7½ crore Canada-India reactor, now under construction at Trombay When it goes into operation in 1960, India will possess one of the best isotope producers in the world, with which it will be able to 'produce the full range of radio-active isotopes A joint Indo-Canadian project, Canada's share (£2.75 million) is being provided under the Colombo Plan. The reactor will require some 20 tons of heavy water, which has been sold to India by the U S. Atomic Energy Commission

This laboratory, which was built in 1958, is a start to train a team of chemists in the handling of highly radioactive substances. An important function of the laboratory is to assist all divisions of the establishment in the use and handling of radioactive materials in their experiments. The laboratory was set up under the supervision of a U.K. scientist, Mr. G. R. Hall.

Thorium Plant—The four-year-old thorium plant produces two much-needed raw materials for atomic energy developments; over 300 tons of thorium and a few tons of uranium a year, which is equivaent in fuel value to roughly 1,000 million tons of coal. This is about 30 times the present annual production of coal in India. The plant is one of the largest in the world for the production of thorium nitrate. Besides supplying virtually the entire requirements of the gas mantle industry in Asia, it also supplied markets in Europe and America, and is earning valuable foreign exchange by exports.

The production of adequate supplies of uranium is the basic requirement for a self-sufficient atomic energy programme and, accordingly, a plant has been set up at Trombay to process uranium concentrates into reactor-grade uranium metal for experimental purposes and for use in the reactors that are under construction at Trombay.

Atomic Energy Minerals in India—A country desirous of harnessing nuclear energy for *peaceful* purposes must have: (1) Uranium 235 or Plutonium, or further fuel from thorium U. 238; (2) Beryllia, graphite or heavy water as a moderator; (3) zirconium, beryllium or niobium for sheathing fuel; (4) boron, in some form or other, as control; and (5) sodium, or bismuth as coolants.

The beach sands of Kerala and Madras carry 0.5 to 2.0 per cent of monazite (a phosphate compound of rare earths). They constitute an easily accessible source of uranium, the exploitation of which will also yield substantial tonnages of thorium and other valuable rare earth compounds. The known Indian reserves of uranium in ore containing more than 0.1 p.c. exceed 30,000 tons.

Indian monazite contains from 0.2 to 0.46 per cent of uranium oxide, and 8 to 10 per cent of thorium oxide. The known reserves of thorium are about 500,000 tons.

An intensive search is under way in India for atomic minerals. The India Government is awarding up to Rs. 10,000 for the discovery of new uranium deposits capable of producing 50 tons of ore assaying 0.4 per cent of uranium oxide, and lesser rewards for bringing uranium-bearing materials to its notice.

Beryllium is found in India as beryl—a silicate compound. This contains ten per cent of the oxide and 3.5 to 4.2 per cent of the metal. Domestic production, mainly associated with mica deposits, is of the order of 1,000 tons of beryl a year.

The other useful minerals for the production of atomic energy in India are—Zirconium reserves of India (silicate of the metal) in the sands of Kerala alone are of the order of 5,000,000 tons. Boron 10 is another valuable element used in atomic energy development, but it is not found in India. Tibet produces and exports substantial amounts of borax to India. Another metal of value in the atomic energy field is colombium generally associated with tantalum, as combined oxides. It is found associated with mica and beryl in course granite rocks in India and tin deposits in Nigeria.

The heavy water, another chemical required in nuclear reactors to serve as moderator, would be also manufactured in quantity. The scheme for the production of heavy water has also been finalised.

The decision is to produce heavy water and fertilizer to gather in a large plant which is being built in Nangal (Punjab). This plant will give 10 to 20 tons of heavy water per annum. It was also the intention of the Government to produce heavy water in all fertilizer factories which would be set up in the second Five-Year Plan. It is the intention of the Government to erect plants for the manufacture of beryllium and irconium metals. India is the largest producer in the world of the rare mineral K. Beryl from which beryllium metal was obtained. The metal irconium could be obtained from ircon sand found in the south-west coast of India. Both the metals have important uses in advanced types of atomic reactors.

Collaboration with other countries—On Dec. 23, 1955, it was announced in London and Delhi that an agreement has been reached between India and England for "close co-operation and mutual assistance between U.K. Atomic Energy Authority and the Indian Departments of Atomic Energy in the promotion and development of the peaceful uses of atomic energy. The agreement provided (1) that members of the staffs of both bodies would consult and work together on mutually agreed topics (2) that the U.K. Atomic Energy Authority would provide the Indian Dept. of Atomic Energy with enriched uraniumful elements for a 'swimming pool' reactor under construction in Bombay (3) that the Authority would also assist in the design and construction of a high flux reactor which might be built in India.

It was also announced on Feb. 22, 1956 by the American Atomic Energy Commission that U.S.A. had approved the sale of 21 tons of heavy water to India at $ 28 per pound on condition that all supplies will be used for peaceful application.

State Undertakings—(1) *Indian Rare Earths (Private) Ltd.*, was set up in August 1950 by the Government of India and the Government of Kerala. This undertaking is designed to treat 1,500 tons of monazite per year and to produce therefrom about 1,500 tons of rare earth chlorides and carbonates and some 1,500 to 1,800 tons of sodium phosphate as by-products. (2) *Travancore Minerals (Private) Ltd.*, was registered in October 1956 for all sand separation undertakings.

MINERAL OILS IN INDIA

IMPORTANCE OF MINERAL OIL AND GAS IN INDIA—The extent to which India has to depend on the mineral oil and gas may be easily ascertained from the following facts :—India needs aviation fuel for her civil and military planes, petrol for her motor cars, kerosine for lighting and cooking, diesal oil for the buses and tractors, furnace oil for factories, bitumen for roads, and lubricants for machines. Oil is not only essential for the development of our industry, it can also help to provide a solution of our biggest problem in food. If our villagers could be persuaded to do their cooking on kerosine stoves, it would mean the saving of about 250 million tons of animal dung annually which goes up in smoke.

India is producing 6.40 million tons of petroleum, mainly from Digboi oil fields against an annual consumption of about 5 million tons. It is estimated that the demand for oil in India will be about 7 and 14 million tons by the end of Second and the Third Year Plans respectively.

ADMINISTRATIVE AND FUNCTIONAL SET-UP—With the formation of the new Central Cabinet in 1957, a new Ministry has been formed known as *Ministry of Steel, Mines and Fuel.* The Ministry of Steel, Mines and Fuel now consists of the following Departments—(1) Department of Iron and Steel (2) Department of Mines and Fuel. This Ministry is headed by a Cabinet Minister, who is assisted by a Minister of State for Mines and Oil. The Department of Mines & Fuel has taken over the following offices and organisations —(1) Geological Survey of India (2) Indian Bureau of Mines (3) Oil and Natural Gas Commission (4) Office of the Coal Controller (5) Coal Board (6) National Coal Development Corporation and (7) Nevili Lignite Corporation.

The Department of Mines and Fuel is responsible for the following subjects—(i) Mines and minerals (including the Indian Bureau of Mines, special mining projects and the Geological Survey of India) (ii) Fuel including coal, lignite, oil and natural gas (including exploration, drilling, existing and future refineries, distribution and pricing).

The Department of Mines and Fuel has the following major Divisions—(1) Coal and Lignite Division (2) Mines Division (3) Oil Division. Of these, Oil Division administers *Oil and Natural Gas Commission* ; exploration, production and refining of oil and natural gas ; prices and distribution of petroleum products ; petroleum economics ; refineries ; Government and Defence requirements of petroleum products ; Indo-Stanvac Project and Petroleum Commission Rules.

OIL EXPLORATION IN INDIA—The occurrence of oil is known to be related to sedimentary areas. It has been estimated that the extent of sedimentary areas in India is nearly 400,000 sq. miles. This vast oil potential is distributed as follows—(1) 30,000 sq. miles in Assam including areas in which concessions are held by the Assam Oil Company, Tripura and Manipur (2) 30,000 sq. miles in West Bengal including the 10,000 sq. miles concession held by the Standard Vacuum Oil Company, parts of the coastal regions of Orissa and Sunderbans (3) 50,000 sq. miles in the Punjab, Himachal Pradesh, Jammu and Kashmir (4) 46,000 sq. miles in Rajasthan (5) 68,500 sq. miles in Cumbay-Cutch (6) 142,000 sq. miles in the Ganga Valley (7) 17,000 sq. miles in the Madras Coast (8) 9,500 sq. miles in the Andhra Coast (10) 3,[illegible]00 sq. miles in the Andaman and Nicobar Islands. The Government of India is carrying out geological and other surveys prospecting and drilling operations in every likely place in India recommended by Indian and foreign experts.

Exploration work is going on in parts of the Himalayas, Assam, Ganga Valley, West Bengal, Rajasthan, Cambay-Cutch and the narrow fringes, along the East and the West Coasts under the auspices of the Commission. Test drilling is in progress at Jwalamukhi in the Punjab and at Lunej in the Cambay basin. In West Bengal basin the work is being executed by the Standard Vacuum Oil Company with financial participation by the Government. The details are given below—

PUNJAB, HIMACHAL PRADESH AND JAMMU : This region is thought to be an extension of West Punjab Oil field belt. Some of the structures resemble those of the Iranian oil fields.

Two favourable structures which have been geologically mapped in the sub-Himalayas and another deciphered by geophysical methods in the Punjab plains near Hoshiarpur, have been considered for drilling. One of them, viz., the Jawalamukhi structure, has been drilled to a depth of nearly 6,500 feet. One horizon interpreted as gas bearing in this well has been tested. The test proved successful and large quantities of gas, with probable industrial potentialities, have been discovered. Further drilling is being continued to its objective depth of about 10,500 feet.

The test well near Hoshiarpur has reached a depth of over 10,000 feet.

The third structure at Januari is expected to be drilled as soon as a drill is available.

GANGA VALLEY : Aero-magnetic surveys have indicated sediments of great thickness in these areas. Geological surveys have been undertaken in the sub-Himalayan region. Recourse has been made to geophysical methods for finding hidden underground structures. Exploration activities will be continued in this area.

JAISALMER : Aero-magnetic surveys have indicated considerable thickness of sediments in western and south-western portion. On account of the inaccessibility, and extremely difficult working conditions, geological and geophysical investigations have so far been confined only to the more accessible areas. These surveys will be continued.

CAMBAY-CUTCH : Geophysical investigations in Gogha and Cambay regions and the alluvial tracts of Gujerat indicated a good thickness of possible oil-bearing sediments, which are expected to occur at a comparatively shallow depth

A favourable structure near Cambay, is being drilled now. Oil has been struck at more than one horizon. Oil has been struck at village Lunej about 8 miles north of Cambay on Sept. 8, 1958, and also at experimental drilling sites at Vadser, four miles from Baroda, about 50 miles from Lunej in September 1958.

SIBSAGAR (ASSAM) : Seismic surveys have located two structures at a great depth near Sibsagar. Arrangements are being made to test one of these structures by deep drilling.

WEST BENGAL : The Commission is maintaining liaison with the Standard Vacuum Oil Co., on behalf of the Government of India who are co-partners in the Indo-Stanvac Project. Four holes have been drilled. The results have confirmed the existence of marine rocks. So far no commercial quantities of oil or gas have been obtained.

EAST AND WEST COASTS : Good thickness of sediments are known to occur along certain coastal patches of the East and West Coasts of India. Gas shows are reported from parts of the Cauvery Basin and Kerala. The Commission proposes to undertake reconnaissance, geological and gravity surveys in these parts in the near future.

OIL REFINARIES IN INDIA—A survey of possibilities and suitable locations for refineries in India was undertaken by the major oil companies in 1948 at the instance of the Government. Agreements were signed by the Government of India with the *Standard Vaccum and Burmah Shell group* of companies, whereby they agreed to provide a modern oil refinery, each in Trombay near Bombay. *Caltex* followed suit a little later by offering to construct a refinery in Visakhapatnam on the east coast. The Stanvac Refinery came on stream in the third quarter of 1954, the Burma Shell Refinery early in 1955 and the Caltex Refinery started functioning in July 1957.

The Burmah-Shell Refinery is the largest in India with a designed capacity of a little over two million tons, followed by Stanvac and Caltex with a designed capacity of 1.2 million tons and 0.67 million tons of crude oil respectively.

The coastal refineries at Bombay and Visakhapatnam are running on imported crude oil. The Burmah-Shell and Stanvac Refineries are getting their supplies of crude oil from the Persian Gulf. The Caltex Refinery is processing crude oil from the Middle East and Indonesia. The Government of India announced in 1958 that they have decided to set up two oil refineries, one at Barauni (Bihar) and the other in Assam. Both would be in the public sector. The Rumanian Government has offered assistance in the construction of the proposed Assam refinery. For about 60 years a refinery has been functioning at Digboi to exploit the crude oil obtained locally.

While these oil refineries are taking us a step nearer self-sufficiency, it would be appreciated that our needs of petroleum products are growing at the rate of some 8 to 9% per annum.

It is estimated that, on an average, every additional ton of oil required in excess of existing demand calls for an investment of the equivalent of Rs. 600 per ton and this cost is rising. About half this sum is required to finance the exploration and production of oil and the other half to cover refineries, tankers, research and marketing facilities.

PRESENT OIL PRODUCTION IN INDIA—Of all the States in the Union, Assam is today the only region possessing proved commercial reserves of oil. Efforts have been made, and indeed are still in progress today, to find underground oil which is confined to a relatively small area in the north-eastern extremity of the sub-continent. Here, at the head of the Brahmaputra Valley, lie the Digbol oil field (annual production about 410,000 tons per annum) and the newer, vastly more important, oil areas of Nahorkatiya and Moran—which, however, are not yet fully operative. Here, too, is the heart of the only full-scale petroleum industry in the country, for Digboi embraces all phases of the industry—from the search for oil in the earth's rocks to the distribution of the refined products.

The Digboi oilfield was discovered, almost by chance, in 1890, after several unsuccessful oil prospecting efforts by various explorers elsewhere in the region. At that time practically the whole of the Upper Assam was covered with thick dark jungle, unhealthy because of malaria and uninhabitated except by wild animals.

In September, 1899, the railway company began drilling a well near the track, and in November 1890, after 14 months' hard work, oil was found when the drill reached a depth of 662 feet. Other wells followed some successful, some failing to find oil and some even catching fire, but progress in the jungle was slow.

The first Assam Oil Company was formed by the A R. & T. Co. in 1889, just 10 years after the first Digboi well began drilling. But another 20 years passed before oil production amounted to 14,000 gallons a day, and this was not sufficient to keep the Digboi refinery in full operation. The time finally came when the company found it impossible to carry on without further financial backing. The Burmah Oil Company then took over control of the Assam Oil Company and proceeded to send much-needed, up-to-date equipment to Digboi. By 1925, the first large oil well in Digboi was completed, and hopes began to rise. The wells were going deeper and more oil was being produced, but it was only in 1931 that the yield at last reached the figure of 180.000 gallons a day which was the amount the Digboi refinery, now enlarged, was designed to handle.

RUPEE COMPANY TO EXPLOIT OIL IN INDIA—In December, 1956, an agreement was reached between the Government of India and the Burmah Oil Company and the Assam Oil Company for the formation of a rupee company to exploit the oil reserves of Nahorkatiya, Hugrijan and Moran in Assam. The agreement incorporates the decision to set up two refineries.

To be called *Oil India (Private) Ltd.*, the Rupee Company will have an authorised capital of Rs. 50 crores divided into 500.000 shares of Rs. 1.000 each, of these one third will be held by the Union Government and the rest by B.O.C. The New Company will be registered in

Assam. One of the clauses of the agreement is : Oil India (Private) Ltd., will employ Indian nationals in preference to foreigners whenever possible.

The Company will exploit the oil resources in the Nahorkatiya, Hurijan and Moran areas in the upper Assam. Nahorkatiya and Hurijan are the prospecting areas in the Brahmaputra alluvium where oil at great depth was first discovered in 1953. 30 deep wells, most of them good producers of crude oil, have been drilled here so far. Still further down the valley lies Moran, where five wells have been completed to date.

The Nahorkatiya area was on the list of Assam prospects to be tested as long ago as 1925. In that year, the Digboi oil explorers carried out a torsion balance (gravity) survey in Upper Assam, and parts of the region covered included the Nahorkatiya area. Gravity surveys were again undertaken during the years 1927 to 1930 (in the 1929 season the area covered Moran, where oil has recently been found by the drill), again in 1938, and yet again in 1945 to 1950. The latest gravity survey, by the modern "Worden" gravimeter, was carried out from August 1953 to July 1954.

There were also repeated seismic surveys in the effort to find more oil in Assam. These began in 1938 at Jorhat, were continued the next year at Nahorkatiya, and after the war moratorium were resumed again from October, 1953 to June, 1957 (except for one rainy season in 1956). The programme of seismic work in the Brahmaputra Valley was continued again in October, 1957. Nor is this the end of the list of AOC geophysical studies. Between November, 1953 and January, 1954 an aerial mangnetometer survey was flown over 10,000 square miles of the valley.

FAMILY PLANNING IN INDIA

Object of the Plan—The problem of regulating India's population for the dual standpoint of its size and quality is of utmost importance for national welfare and economy. The population of India is growing at the rate of 5 million persons on an average every year. The aim is to educate the people on the need for limiting families in the larger context of national, economic and social progress. The objects of the family planning programme as laid down by the Planning Commission are—(1) to obtain an accurate picture of factors contributing to the rapid increase of population in India (2) to discover suitable techniques of family planning and device methods by which knowledge of these techniques can be widely disseminated and (3) to make family planning an integral part of service in Government hospitals and public health agencies (4) research on the production of contraceptives (5) facilities for training of personnel in family planning.

Begining of the Plan—The Family Planning was launched as an official programme in the later part of the First-Year Plan as part of the Government of India's policy for population control. During the second Five-Year Plan period, the programme was intensified in different directions; firstly by opening of a large number of urban and rural clinics and sanctioning of financial assistance to State Governments and voluntary organisations and others to establish clinics and to run family planning centre and secondly, by the extension of the training programme of different categories of personnel who will implement the programme. Family planning activities are conducted solely on a voluntary basis. Every care is taken that social and cultural values are not affected.

Central Board—The head of the entire family planning organisation is the Central Family Planning Board with the Union Health Minister as Chairman and a representative membership and a Standing Committee. Family Planning Boards have been formed and Family Planning officers have been appointed in most States.

Budget of the Plan—For the family planning programmes, Rs. 25 lakhs has been provided during 1957-58 and Rs. 46 lakhs for 1958-59 under the Plan.

Second Five-Year Plan—For the execution of various faces of the Family Planning Programme, the sum allocated for the Second Plan is Rs. 497 lakhs. Rs. 400 lakhs of it is intended for the scheme of the Centre and Rs. 97 lakhs for schemes of the State Governments. During Second Plan period, 2,000 rural and 500 urban clinics are proposed to be established throughout the country in addition to 147 set up in the First Plan period.

Training and Research—The first item of the programme is a large scale opening of family planning clinics and centres at which instruction in family planning would be combined with the popularization of the methods by which objectives can be attained. Priority is given to the training of persons like doctors, health visitors, social workers and field workers.

To carry out further studies in the population trends and research work on better and effective contraceptives, two demographic centres have been started—one at Bombay in collaboration with Dorabji Tata Trust which will also function as a regional centre of the United Nations and the other at Delhi under the auspices of the Delhi University. Family Planning officers have been appointed in many States. Family Planning Boards have also been formed in all States except Madhya Pradesh and Punjab.

In the sphere of research, a grant of Rs. 15,000 was sanctioned to the Director, All India Institute of Hygiene and Public Health for continuation of research of synthetic Meta-xylo-hydroquinone as an oral contraceptive. The Demographic Centre at the Delhi School of Economics was sanctioned a grant of Rs. 18,280, while an amount of Rs. 32,670 was sanctioned to the Demographic Training and Research Centre, Bombay.

Family Planning Programme—(1) Family Planning activities are conducted solely on a voluntary basis. Every care is taken that social and cultural values are not affected. (2) Family Planning Boards have been formed and Family Planning officers have been appointed in most States. (3) Provision of family planning clinics in teaching institutions for doctors and medical auxiliaries and incorporation of family planning in their courses of study is being initiated. (4) For the family planning programmes, Rs. 25 lakhs has been provided during 1957-58 and Rs. 49 lakhs for 1958-59 under the plan. (5) Against the target of 370 clinics, 353 clinics are reported to have started functioning.

INDIAN ELECTIONS

Election Commission—Under the Article 324 of the Indian Constitution, Election Commission has been set up by the Government of India for conducting free and fair elections throughout the country on Jan 25, 1950. The Election Commission is a Statutory body and has an independent status. The main functions of the Election Commission are as follows—

(1) Superintendence, direction and control of the preparation of the electoral rolls and keeping them up-to-date at all times (2) conducting all elections to the Parliament and State Legislatures as well as the election of the President and the Vice-President of India (3) appointing the Election Tribunals to investigate into complaints made in election petitions, etc

The Commission consists of a Chief Election Commissioner, and such other Commissioners as necessary are appointed by the President. The President also appoints Regional Commissioners in consultation with the Election Commission The conditions of tenure and service of the Commissioners are determined by the President.

1957 Elections—The results of the Lok Sabha elections were officially published on April 5, 1957 Candidates were returned for 488 of the 500 seats in the Lok Sabha filled by election.

The Congress won 365 seats, about the same number as in 1951-52 elections and increased its proportion of the total vote from 45 to 47 per cent. It also won absolute majority in 11 of the 13 State Assemblies, although securing a majority of the total vote only in Assam (56 per cent) and Mysore (51 per cent). In Orissa, where no single party obtained a majority, Congress as the largest party formed a minority Government with the support of certain other groups. In Kerala, the Communist Party emerged as the largest single group, and was able to take office with Independent support.

Out of an electorate of 193,129,024 about 121,400,000 people voted in the parliamentary and 112,300,000 in the State Assembly elections. 118,821,705 votes were cast in the parliamentary elections against 105,987,318 in the 1951-52 elections, when the electorate totalled about 173,000,000 The number of candidates for the Lok Sabha shared a considerable decrease, from 1975 in 1951-52 to 1493. Only 12 candidates (all congress) were returned unopposed.

Elections to the Lok Sabha.

The following table shows the seats and votes won by the four all India parties—the *Congress*, *Praja Socialist Party*, *Communist Party* and *Jan Sangh*.

	1957		1951-52	
	Seats	*Votes*	*Seats*	*Votes*
Congress ..	365	57,278,612	362	47,528,911
P. S. P. ..	19	11,642,726	21	17,285,126
Communists ..	29	12,068,452	[illegible]	4,712,009
Jan Sangh ..	4	7,216,800	3	3,206,361
Others ..	71	30,615,115	80	33,224,911

(*All Voting figures are provisional*).

Others include Independents, Scheduled Castes Federation, Ganatantra Parisad, Forward Bloc, Janata Party, Hindu Mahasabha, etc.

State Elections

Simultaneously with the Parliamentary elections, voting took place for the Legislatures in all the States except Andhra Pradesh, where voting was confined to the Telangana area (transferred from Hyderabad under the States Reorganisation Act), as elections to Andhra Assembly had been held in 1955.

The election results of the State Assemblies were as follows—Of 2,899 seats filled as a result of the state elections, the Congress won 1,888, the Communists and their allies 189, the P. S. P. 195 and the Jan Sangh 46.

The Congress obtained majority in 11 of the 13 States (excluding Kashmir). As in the Parliamentary elections, it improved its position in Andhra Pradesh, Madras, Punjab and Rajasthan, but suffered setbacks in Bihar, the Maharashtra and Gujarat areas of Bombay and Uttar Pradesh. The Communists secured representation for the first time in all the State Assemblies and in Kerala formed the first Communist Government in any Indian State. They constituted the largest opposition group in Andhra Pradesh and West Bengal and considerably increased their representation in Bombay but lost ground in Telangana and Madras. P. S. P formed the largest opposition group in Assam, Bihar, Bombay, Madhya Pradesh, Mysore and Uttar Pradesh. The right wing parties (apart from the Orissa Ganatantra Parisad) met with little success except in Madhya Pradesh, the Punjab, Rajasthan and Uttar Pradesh.

Election Statistics—In 1957 election, of the electorate of 193 million, 47.54 p.c. cast their votes in the election of members of Lok Sabha, while the percentage in the case of election to Assemblies was 48.23. In the first General Election, out of an electorate of 173 million, 51.07 p.c. cast their votes in Parliamentary constituencies. About 96 per cent of the adult population was enrolled as voters in the First General Elections. The figure rose by 2.8 per cent in the present elections. Number of polling stations and ballot boxes were 1,96,084 and 27,73,850 respectively during elections in 1951, while the corresponding figures for the election in 1957 were 2,20,478 and 21,00,931.

LEGISLATIVE ASSEMBLIES OF THE STATES

(Position on March 1, 1958)

	No of Seats	Congress	PSP	CPI	JS	OP	Ind.
Andhra Pradesh	301 (1)	213	11	12	—	27	37
Assam	108 (3)	70	8	4	—	—	23
Bihar	318 (1)	208	32	7	—	55	15
Bombay	396 (3)	231	35	13	4	44	66
Kerala	126	43	9	60	—	—	14
M. P.	288	232	12	2	10	12	20
Madras	205 (1)	151	2	4	—	—	47
Mysore	208 (1)	147	18	1	—	4	37
Orissa	140	56	11	9	—	51	13
Punjab	154 (1)	119	1	6	9	5	13
Rajasthan	176 (1)	119	1	—	6	17	32
U. P.	480 (1)	284	44	7	17	—	71
West Bengal	252	152	21	46	—	8	25
Jammu & Kashmir	72	—	—	—	—	74	1

Note—Figures in the brackets indicate number of vacant seats.
OP (other parties) include various state parties, such as, Hindu Mahasabha, Janata Party, Ram Rajya Parisad, Ganatantra Parisad, Forward Bloc, Scheduled Castes Federation, National Conference, etc.

FACTS ABOUT 1951 AND 1957 GENERAL ELECTIONS

	1951-52	1957
Lok Sabha		
Number & Seats	489	494
No. of Constituencies	401	403
No. of contesting candidates	1874	1519
Legislative Assemblies		
Number of seats	3283	3102
No. of constituencies	2703	2518
No. of contesting candidates	15,361	10,177
Total expenditure on Elections		
Both Lok Sabha & Assemblies	Rs. 10,45,47,099	Rs. 5,90,21,786

Recognition of Parties—The Election Commission will allow more time to political parties to consolidate and improve their standing before the required minimum of the per cent of pulled votes to get or retain recognition for allotment of symbols. Accordingly four all-India parties—*Congress,Proja-Socialist, Communist* and *Jan Sangh* have retained their recognition as National Parties. There votes in the second general election were : Congress : 47.74 per cent as against 45 per cent in the first general election ; Proja Socialists—8.92 per cent as against 10.6 per cent for socialists and 5.8 per cent for the K. M. P. P. in the earlier elections ; Communists 8.42 per cent as against 3.3 per cent and Jan Sangh—4.63 per cent in the first general election against 3.1 per cent in the first general election.

The All-India Socialist Party and the Akhil Bharat Hindu Mahasabha asked for recognition on all India basis. They failed to earn it because the percentage of votes polled by either party at the elections to the Lok Sabha was less than 3 per cent of the total votes polled. However, they did secure the minimum at some places and were accorded the status of state parties—the All India Socialist Party in Uttar Pradesh and Manipur and the Akhil Bharat Hindu Mahasabha in Delhi. Since the Union Territories of Delhi, Himachal Pradesh, Manipur and Tripura have no legislative assemblies, the Election Commission has recognised State Parties on the basis of votes polled in the Territory concerned in the preceding general election to the Lok Sabha.

State Parties—Of the existing 10 State Parties functioning in States other than Andhra Pradesh, parties which retained the recognition already granted to them were—Jharkand Party and Chotanagpur Santal Parganas Janta Party in Bihar ; Peasants and Workers' Party and the All India Scheduled Castes Federation in Bombay ; Akhil Bharat Hindu Mahasabha in Madhya Pradesh ; All India Ganatantra Parisad in Orissa ; All India Scheduled Castes Federation in the Punjab ; Akhil Bharat Ram Rajya Parisad in Rajasthan ; All India Forward Bloc (Marxist) in West Bengal ; All India Scheduled Castes Federation in Himachal Pradesh. As there was no general election to the Legislative Assembly of Andhra Pradesh covering the entire State, the existing parties continue to enjoy recognition.

The Parties which failed to poll three per cent of valid votes lost their recognition and symbols. The parties are. Akhil Bharat Hindu Mahasabha and Akhil Bharat Ram Rajya Parisad of Bombay ; Revolutionary Socialist Party of Kerala ; Akhil Bharat Ram Rajya Parisad and All-India Scheduled Castes Federation of Madhya Pradesh ; All India Scheduled Castes Federation and Peasants' and Workers' Party of Mysore ; Akhil Bharat Ram Rajya Parisad of Uttar Pradesh ; Akhil Bharat Hindu Mahasabha of West Bengal ; All India Scheduled Castes Federation of Delhi and Tripura ; and Ganatantrik Sangha of Tripura.

THE INDIAN VILLAGE

In modern India, the old village communities are vanishing. There are no village communities in West Bengal in the sense in which the term is usually understood and as they are found in certain other States of India. The Permanent Settlement and the predominating local influence of the landlords, as well as other contributory causes, such as the spread of education, improved facilities of communication, and the over-increasing tendency to centralisation of control, combined to destroy all traces of any village system which existed in pre-British days.

But Mahatma Gandhi said in 1946, "Indian Independence must begin at the botton. Every village should be a republic or a panchayet having full powers—the greater the powers of panchayat the better for the people."

STRUCTURE OF INDIAN VILLAGES : Villages differ from each other in India ; especially so, villages being widely separated parts of the country. For instance, the hermit village of Malan is quite different from Dilwara in Rajasthan, or Kumbapettai in Tanjore, or Hattarahalli in Mysore. The physical, social and linguistic isolation of Malana has enabled it to be more or less completely autonomous. The difference between villages cannot all be reduced to the degree of proximity to the forces of urbanization, industrialisation and Westernisation. Each village has a pattern and mode of life which is to some extent unique. Villages next door to each other differ considerably, and this fact is recognised by rural folk.

The number of castes living in a village is an important thing. Each caste has a culture of its own which is to some extent different from the culture of the others. The structure becomes complex as the number of castes increases. The structure of the Gaddi village of Goshen, or Malana, or the Bhil villages of Rajasthan is certainly simpler than the villages in other parts of the country. Size too is an important matter in this connection ; the smallest village has about 500 inhabitant, while the largest village has about 2,7500 inhabitants.
500 inhabitants, while the largest village has about 2,7500 inhabitants.
smallest. Some villages, particularly Malana or the Bhil villages in Rajasthan, enjoy a degree of isolation which is denied to the others.

Among various diversities, there is unity of the Indian village. A body of people living in a restricted area, at a distance from other similar groups, with poor communications between them, the majority of the people being engaged in agricultural activity, all closely dependent upon each other economically and otherwise, and having a vast body of common experience, provide a sense of unit to a village community. Caste is even today an institution of great strength, and as marriage and dining are forbidden with members of other castes, the members of a caste living in a village have many important ties with their fellow caste men living in neighbouring villages.

A caste is not self-sufficient by itself. The castes living in a village or other local area are interdependent economically and otherwise. Ideally, each caste enjoys a monopoly of an occupation, and this monopoly both unites as well as divides the people enjoying the monopoly. The strong rivalries which exist between the members of a non-agricultural or servicing caste often force them to seek friends outside their own caste. Again, the lower castes, in spite of the troubles and humiliation of subordination, are aware that the system guarantees them a living. Members of different castes are also linked up in other ways : the relationship of landlord and tenant, master and servant, creditor and debtor, and patron and client ignore caste barriers to bind together people who are unequal.

The village wards as well as the castes, both have their separate councils of elders known as the panchayat. The caste panchayat is presided over by the headman of the caste ; and is composed of the elders of that particular caste. The ward council on the other hand, consists of the elders from that ward and is presided over by the headman of the ward. In practice, the more vocal assertive members of the village council become the *de facto* panchayat for the village.

Three petty government officials have a position of some influence in the Deccan village community. These are the Patel, the Kotwal and the Howaldar. The Patel assists in the collection of land revenue, arranges to send reports of breaches of law to the police, and generally looks after the arrangements for touring government officials. He maintains a record of significant events and developments in the village and also records births, marriages and sale of animals.

Appointed by the State's Revenue Department, the Patel gets five per cent of the land revenue of the village for his work. The Kotwal, belonging to the untouchable Madiga caste, works as an assistant to the Patel. He carries weekly reports and information pertaining to serious crime to the police-station. He has to patrol the village in the night, makes government and village announcements by the beat or drum, and looks after the arrangements for touring government officials. The Hawaldar too is a sort of general assistant to the Patel, The Kotewal and the Hawaldar both get a salary of three rupees per month in addition to grants of bits of rent-free land. At harvest time, cultivators give them some grain also.

Another feature of the Indian village life is the joint family. A joint family has long been the common form of family organisation in India, sanctified in scripture and sanctioned in secular law It consists typically of a set of men, related as fathers and sons, brothers, together with their wives and children. The several nuclear families thus grouped together form a single unit of consumers and often also a single producing unit. The property of all is held in common under the trusteeship of the senior male ; every male child is entitled to a share of the joint family property. All in the joint family are fed from a single kitchen and receive money from the family purse Among cultivators, all in the joint family work together for the family's crop. Joint families have long been in a continuous process of formation and fission.

Governmental agencies, of both the central and state administrations, have attempted to encourage the growth of a new social organisation in the village. Legislation has been passed in some provinces and funds provided to enable village councils, panchayats, to be formed and to function. In name, these are the same as the traditional councils which have for centuries adjudicated disputes among villagers. In manner of composition, in function, they are very different. The members of the new panchayat must be elected, must electioneer. In the past, they were accorded place by universal respect and could hardly keep that respect if they pressed their claims. The old councils were arbitrary, conserving agencies whose prime function was to smooth over or settle village friction. The new panchayats are supposed to be innovating, organizing bodies working for changes rather than conserving solidarity.

The community development projects and the national extension services have been designed to bring about an economic reorientation in our villages, and the panchayat system has been designed to provide a new sacial and political structure to our villages.

Village Administration—For the sake of administrative convenience, each State in India is subdivided into smaller units. At the top of all, we have in some States the *Division* into which the State is divided. At the head of each Division we have a Commissioner. There Divisions are again divided into *Districts*. Some States may not have Divisions but District is the principal unit of administration in a State under a Collector and District Magistrate. As a Collector he is responsible for the proper collection of revenue and for the administration of all matters connected with land excepting in some minor aspects. As District Magistrate, he is responsible for the maintanance of law and order and the criminal administration of the District.

For the sake of administrative advantage, each District is divided into number of Sub-Divisions.

Local Self-Government—The Local Self-Government in India is divided into two classes—urban and rural. Corporations or Municipalities cater to the needs of the urban areas, whereas in rural areas, so far as civic needs are concerned, they are governed by the District or Taluk Boards or village *Panchayats*. So in urban areas, we have different varieties for satisfying the civic needs of the people, such as municipal corporations, municipal committees, small town committees, Notified Area Committees, District and other Local Boards in addition to Gram Panchayats of villages.

The principal function of the district boards is to provide for primary education, to construct and maintain roads other than highways and to manage public health and charitable institutions in rural areas.

The importance of the civic development of rural areas can be easily imagined if we realise that there are only 3,016 towns compared to 5,58,089 villages in India. 25.5 per cent of the total rural population live in small villages (under 500 persons), 48.8 per cent in medium-sized villages (between 500 and 2000 persons), 19.4 per cent in large villages (between 2,000 and 5,000 persons) and 5.3 per cent. in very large villages (over 5,000 persons).

Panchayats—A specific directive principle on *panchayats* were included in the now Constitution of India. It declared, "The State shall take steps to organise village panchayats and endow them with such powers as may be necessary to enable them to function as units of self-government." The First Five Year Plan envisaged *panchayats* to play their part in organising village development programmes. The second plan tressed the nead of a well-organised democratic structure of administration in which the village *panchayats* will be organically linked with popular organisation at a higher level.

The number of *panchayats* has been steadly increasing. In 1957 152,337 *panchayats* covered 3,98,222 out of 5,68,575 villages. It is estimated on March 1958 the number of *panchayats* had risen to 1,64,358. But it has been estimated that hardly 10 per cent of them were functioning effectively, 40 per cent unsatisfactorily and the rest were average. The Committee on Plan Projects Study Team on Community Development and N. E. S. stated that the lack of efficiency of many of our present rural self-governing bodies has been due to two large a jurisdiction, too few powers, too scanty finances accompanied by an absence of close relationship with the village panchayats and of wise guidance by governmental and political parties.

Panchayats are elected by the Gram Sabhas consisting of the entire population of the village. They are responsible for the provision of civic and other amenities of the village. Their main functions are municipal, social economic, judicial and other developmental activities, such as, medical relief, maternity and child-welfare, management of common grazing grounds, maintenance of village roads, tanks and wells, etc. In some places panchayats also look after primary education, maintenance of village records and the realization of land revenue. They levy taxes on houses and lands, fairs and festivals, sale of goods, etc., for building up funds. Besides these functions, the panchayats have also judicial function. This function is performed by a separate department known as *Nyaya Panchayat* elected from among the members of the Gram Panchayats. This Nyaya Panchayat is competent to try minor offences under the Indian Penal Code and other special or local laws. Their powers of punishment are limited to moderate fines and the civil jurisdiction extends to suits of the money value of Rs. 200. Legal practitioners are not allowed to appear before this Court.

Finance—The sources of finance for local bodies are as follows—(1) taxes levied by local bodies (2) taxes levied by the local bodies but by the State Government on their behalf ,(3) Share in the taxes levied and collected by the Government (4) grants-in-aid given by the State Governments (5) Revenue from non-tax sources.

Progress of Panchayats—

Andhra—proposes to cover the State with Panchayats during Second Five-Year Plan. State has established 20 *ad hoc* panchayat Samities.

Assam—The plains have already been covered with panchayats. A bill for the establishment of Block Panchayat Samities and Union Panchayats have been referred to the Select Committee.

Bihar—There is a Bihar Panchayat Raj Act.

Bombay—propose to establish Panchayats throughout the State during Second Plan period.

Jammu & Kashmir—have established Panchayats all over the State.

Kerala—Village Panchayats have been established throughout Kerala except some parts of the Malabar area.

Madhya Pradesh—Madhya Bharat region in the Madhya Pradesh is already covered with Panchayats. Panchayats will be established throughout the State during Second Plan.

Madras—The Government propose to establish Panchayats throughout the State during Second Plan period.

Mysore—The old Mysore region is already covered with Panchayats. The Government propose to establish Panchayats in the whole State during the Five-Year Plan.

Punjab—Panchayats have been established throughout the State.

Rajasthan—The State is covered with Panchayats.

U. P.—Panchayats have been established throughout the State. U. P. Government have abolished District Boards and have setup *ad hoc* District Councils.

West Bengal—A beginning in the establishment of Anchal Panchayats was made during the second Five-Year Plan. The Anchal Panchayats will function at a level between the block and the villages.

COMMISSIONS & COMMITTEES

INTER-STATE TRANSPORT COMMISSION

This has been setup in 1958. Transport is a concurrent subject under the Constitution, and the lack of uniformity of standards in the operation of road transport in different States has been causing many problems. The Commission's powers to arbitrate over inter-State disputes and to sponsor schemes for the development, regulation and co-ordination of road transport in inter-State regions will, therefore, be of great importance. It will also be open to the Commission to issue direction to the States in connection with the grant, revocation and suspension of permits for the operation of transport vehicles in inter-State areas.

KERALA & MADRAS FOOD POISONING CASES ENQUIRY COMMISSION

This Commission was appointed by the Union Ministry of Health on May 23, 1958, following reports of a large number of cases of food poisoning resulting in many deaths in various places of Kerala and Madras, to enquire into causes of death. The commission made the following recommendations—(1) the imposition of control through a comprehensive statute or statutes in the manufacture, storage, transport, distribution and use of highly toxic insecticides (2) provision for regulations may be made under the statute for precautions to be taken in the manufacture, formulation or processing of manufacture, formulation or processing of insecticides (3) it should be made obligatory through regulations on the manufacture processor or formulator to store insecticides in special containers and to use specified containers if the authority constituted in that behalf so directs (4) regarding transport, Indian Merchants' Shipping Act and Indian Merchants Shipping (carriage of dangerous goods) Rules 1954 should be amended to make it obligatory on the shipper to give a declaration under Rule 4 and to prescribe a penalty of imprisonment for substantial period for infringement of the rules. (5) manufacturers and distributors should be licensed (6) there should be regulations for providing labels for containers and packages in which insecticides are stored.

HOTELS STANDARDS COMMITTEE

The Hotels Standards & Rates Structure Committee appointed by the Government of India with Dewan Chaman Lall as Chairman submitted its report in June 1958. The following are the main recommendations—

(1) The hotels in India should be classified from the 5-star or deluxe category to the 1-Star, which is the most economical type.

(2) Appointment of a Statutory Committee for the purpose of classification and for looking into day-to-day problems of the hotel industry.

(3) The Committee accepts and recommends the formula of the American Hotel Association which provides for a return of 10 per cent on investment.

(4) The policy of prohibition cannot be questioned, but the application of rules in the various States have adversely affected the hotel trade and tourist traffic.

(5) The opening of a number of smaller hotels of the type of the Italian tourist hotels at each of the important tourist centres.

(6) Provision of a fund of Rs. 10 crores by the Government from which loans may be advanced on low interest and easy terms to hoteliers to improve and extend their hotels.

(7) Assistance by way of loans through banks.

(8) Facilities for importing essential hotel equipment and hotel provisions.

(9) Grant of direct importers' licences to hoteliers.

(10) Enactment of comprehensive legislation governing hotel industry for the whole country.

U. K. MISSION'S REPORT ON SITE FOR NEW SHIP-YARD

U. K. Ship-yard Mission under Colombo Plan visited India in 1957 and inspected 20 sites. It had been asked to advise the Government of India on the site and the layout of a new ship-yard and the equipment required, to establish it, furnish estimates of the capital costs and to prepare a report for consideration by the Government of India. The Mission considered the sites of Cochin, Kandla, Trombay, Geonkhali and Mazagaon as most suitable for the establishment of a Second Ship-yard. The estimated costs of the proposed ship-yards at the five sites are—Cochin Rs. 19.16 crores, Kandla Rs. 20 crores, Trombay Rs. 17.38 crores, Geonkhali Rs. 20.88 crores. For somewhat different proposals for the redevelopment of Mazagaon Dock, the costs are estimated at Rs. 7.04 crores.

DIRECT TAXES ADMINISTRATION ENQUIRY COMMITTEE

The Committee was set up by the Government of India, Ministry of Finance (Department of Revenue) by their resolution, dated 3rd June, 1958 to advise Government on the administrative organisation and procedure necessary for implementing the integrated scheme of direct taxation with due regard to the need for eliminating tax evasion and avoiding inconvenience to the assessees.

COMMITTEE OF SLUM CLEARANCE

The Report of the Advisory Committee on Slum Clearance, set-up by the Prime Minister was published on August 30, 1958—

(1) The Committee has recommended the desirability of entrusting the work of urban community development to one Ministry at the Centre, which could integrate the activities of the other Ministries in respect of town planning, slum clearance, housing, health, education and industries in order to develop completely the particular slum areas chosen for treatment.

(2) The Committee has recommended that to begin with the worst slum areas in the six cities of Calcutta, Bombay, Madras, Delhi, Kanpur and Ahmedabad might be taken up for treatment.

(3) To initiate the programme of urban community development and also to implement more effectively the present Slum Clearance Scheme, Committee has suggested the levy of a terminal tax on goods and passengers carried by rail.

AWARDS, HONOURS, PRIZES

Bharat Ratna.

This is India's highest award. It is made for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order. The decoration takes the form of a *peepal* leaf 25/16 inches long, 1¾ inches wide and ⅛ of an inch thick. It is of toned bronze. The following are the receipants of the Awards up-to-date :—

C. Rajagopalachari.
Dr. Radhakrishnan.
Dr. C. V. Raman.
Dr. Bhagawan Das.
Dr. M. Visvesvaraya.
Jawaharlal Nehru.
Pt. Govind Ballabh Pant.
Dr. D. K. Karve (1957).

PADMA VIBHUSHAN, 1958

Dr. John Mathai.
Dr. Radha Binode Pal.
Gaganvihari Lallubhai Mehta.

PADMA BHUSHAN, 1958

Ali Yavar Jung.
B. V. Warerkar.
B. P. Patil.
Sm. Dhanvanthi Rama Rau.
Gnulam Yazdani.
Sm. Hansa Mehta.
Dr. Jal Cawasha Paymaster.
Kankanhalli Vasudevacharya.
Nirmal Kumar Sidhanta.
Pammal Sambanda Mudaliar.
Ramdhari Sinha Dinkar.
Sisir Kumar Bhaduri.
Tenzing Norkay.
Tiruppattur R. Murthi.

PADMA SHRI, 1958

Dr. Atma Ram, Director, Central Glass and Ceramic Research Institute.
Dr. Badri Nath Uppal, Agricultural Commissioner, I. C. A. R.
Balwant Singh Nag, Chief, Natural Resources Division, Planning Commission.
Ganesh Govind Karkhanis Vice-President, Harijan Sewak Sangh.
H. N. Sethna, Chief Chemical Engineer, Atomic Energy Establishment.
K. Chandrasekharan, Professor, School of Mathematics, Tata-Institute of Fundamental Research.
Lakhhman Singh Janpangi, Ind. Trade Agent, Western Tibet.
M. B. Diwan, In charge, Dattapur Kushta Dham.
Mathew K. Mathulla, Managing Director, Hindustan Machine Tools, Bangalore.
Mihir Sen (Channel Swimmer).
Jamedar Milkha Singh, Athlete, Southern Command.
Om Parkash Mathur, Executive Engineer, C. P. W. D.
O. Srinivasa Murthy, Director (Planning), Railway Board.
P. K. Panikkar, Director of Exhibitions, Ministry of Commerce & Industry.
Parixitlal Majumdar, President, Gujerat Harijan Sewak Sangh.
P. C. Mehta, Chairman, Lalitkala Academy.
Sm. Ratnamma Issac, Social Worker.
Sm. Shailabala Das, Social Worker.
Dr. S. Patwardhan, Leprosy Worker.
Surendra Nath Kar, Shantiniketan

SAHITYA AKADEMI AWARDS, 1958

The Executive Board of the Sahitya Akadami has awarded prizes of Rs. 5,000 each to following books during 1955-57.

Bengali—Anandibai Ityadi Gulpa (short stories).—Raj Sekhar Bose.

Gujarati—Darshan Ane Chintan (2 Vols. Philosophical essay)—Pandit Shukhlalji.

Kannada—Aralu Maralu (Poems)—D. R. Bendre.

Kashmiri—Sat Sangar (Short Stories)—Akhtar Mohiuddin.

Marathi—Bahurupi (Autobiography)—Chintaman Rao Kolhatkar.

Oriya—Ka (Novel)—Kanchucharan Mohanty.

Urdu—Atishe gul (Poems)—Jigar Moradabadi.

Hindi—Madhya Asia Ka Itihas (2 vols.)—Rahul Sankrityayan.

Malayalam—Kazhinja Kalam (Autobiography)—K. P. Keshava Menon.

Tamil—Chakravarti Tirumagan (Ramayana retold in prose)—C. Rajagopalachari.

RABINDRA MEMORIAL PRIZE

(West Bengal Government Award)

1949-50	Nihar Ranjan Ray, (*Bangalir Itihas*).
1950-51	Satinath Bhaduri, (*Jagori*).
1951-52	Brojendranath Banerjee.
1952-53	Dinesh Chandra Bhattacherjee.
1953-54	Rani Chanda, (*Purna Kumbha*).
1954-55	Rajsekhar Bose, (*Krishnakali*).
	Tarasankar Banerjee, (*Arogya Niketan*).
1955-56	Samarendranath Sen, (*Bijaner Itihas*).
1956-57	Pravat Kumar Mukerjee (*Ravindra Jibani* 4 vols.).
	Dr. R. C. Majumdar (*History and Culture of the Indian People*—4 vols. (English).
1957-58	Premendra Mittra (*Sagar Theke Fera*).
	—Benoy Ghosh (*Paschim Banger Sanskriti*).
	—Dr Suniti K Chatterjee (*Literature Mediavali E Moderne Del Subcontinente Indiano in Italian*).

LALIT KALA AKADEMI AWARDS FOR ART, 1958

(Rs. 1000 Each)

First Prize—Marriage Procession by Mohammad Yasin (also a gold plaque)
Rs. 1000 Each—Bull (Sculpture) by Raghav R. Kanaiia
—*The Death* by A S Jagannathan.
—*At the Cafe* by M. Peddeppa Naidu.
—*Composition* by P. L Jain.
—*Potrait* by Ratan Wadke.
—*Three Horses* by Sunil Kumar Das
—*Steel Exterior* by Dipak Prosad Banerjee.

BENGALI LITERARY AWARDS (1958-59)
Bengali Year—1365

Amrita Bazar Patrika Award (*Sisir Kumar Memorial Prize* Rs. 1,000)—Hari Charan Banerjee.

Jugantar Award (*Motilal Memorial Prize Rs.* 1,000)—Saradindu Banerjee.

Ananda Bazar Patrika Prize (*Rs.* 1,000—*Prafulla Sarkar Memorial*)—Samaresh Bose.

Desh Prize (*Suresh Majumdar Memorial Prize Rs.* 1,000)—Bibhuti Mukherjee.

Mauchak Prize (*Children's Book Rs.* 1,000)—Hemendra Kumar Roy.

'Ultorath' Prize (*for poetry Rs.* 500)—Nirendranath Chakravarti. and Subhas Mukerjee.

HONOURS TO SANSKRIT SCHOLARS

The Scheme of awards introduced by the Government of India in 1958 is intended to accord recognition to eminent Sanskrit, Arabic and Persian scholars and to encourage advanced study in these languages. Along with a Sanad, the scholars will be granted Rs. 1,500 per annum for life and a Robe of Honour—

1958 Vidhusekhara Bhattacharya (*Bengal*).
Pt. Giridhar Sharma Chaturvedi.
Dr. Pandurang Vaman Kane.
Krishnamurthi Sastri (*Andhra Pradesh*).
Dr. Mohammad Zubair Siddiqui.

NATIONAL PROFESSORS

The Government of India created posts of National Professorship of India in 1949. The National Professorship carry a salary of Rs. 2,500 per month and have been created so that the holders may devote their entire energies to research work, which they may carry on in any university or institution of their choice.

1949 Dr. C. V. Raman.
1958 S. N. Bose F.R.S. (*for 5 years*).
1958 Dr. K. S. Krishnan (*for 5 years*).

ORDER OF PRECEDENCE OF WEARING VARIOUS MEDALS AND DECORATIONS

(1). Bharat Ratna; (2). Param Vir Chakra; (3). Ashoka Chakra, Class 1; (4). Padma Vibhushan; (5). Padma Bhusan; (6). Maha Vir Chakra; (7). Ashoka Chakra, Class II; (8). Padma Shri; (9). Vir Chakra; (10). Ashoka Chakra, Class III; (11). President's Police and Fire Services Medal (for gallantry); (12). Police Medal (for gallantry); (13). General Services Medal, 1947; (14). President's Police and Fire Services Medal (for distinguished service); (15). Meritorious Service Medal; (16). Long Service and Good Conduct Medal; (17). Police Medal (for meritorious service); (18). Territorial Army Decoration; (19). Territorial Army Medal; (20). Indian Independence Medal, 1947; (21). Independence Medal, 1950; (22). Commonwealth Awards; (23). Other Awards.

CENTRAL ACTS 1958

No. of Act.	*Name of the Act*
1.	The Requisitioning and Acquisition of Immovable Property (Amendment) Act, 1958.
2.	The Criminal Law Amendment Act, 1958
3.	The Indian Reserve Forces (Amendment) Act, 1958.
4.	The Appropriation Act, 1958.
5.	The Central Sales Tax (Amendment) Act, 1958
6.	The Appropriation (Railways) Act, 1958.
7.	The Indian Post Office (Amendment) Act, 1958.
8.	The Appropriation (Vote on Account) Act, 1958.
9.	The Control of Shipping (Continuance) Act, 1958.
10.	The Appropriation (Railways) No. 2 Act, 1958.
11.	The Finance Act, 1958
12.	The Appropriation (No 2) Act, 1958.
13.	The Bombay, Calcutta and Madras Port Trusts (Amendment) Act, 1958.
14.	The Appropriation (No 3) Act, 1958
15.	The Mines and Minerals (Regulation & Development) Amendment Act, 1958
16.	The Indian Oaths (Amendment) Act, 1958
17.	The Hyderabad Securities Contracts Regulation (Repeal) Act, 1958.
18.	The Gift Tax Act, 1958.
19.	The Indian Stamp (Amendment) Act, 1958
20.	The Probation of Offenders Bill, 1958.
21.	The Rice-Milling Industry (Regulation) Bill, 1958.
22.	The Employees Provident Funds (Amendment) Act, 1958.
23.	The Appropriation (Railways) No. 3 Act, 1958.
24.	The Ancient Monuments and Archaeological Sites and Remains Act, 1958.
25.	The All India Services (Amendment) Act, 1958
26.	The Code of Criminal Procedure (Amendment) Act, 1958.
27.	The Mineral Oil (Additional Duties of Excise and Customs) Act, 1958
28.	The Armed Forces (Assam and Manipur) Special Powers Act, 1958
29.	The Working Journalists (Fixation of Rates of Wages) Act, 1958.
30.	The Sugar Export Promotion Act, 1958.
31.	The Central Sales Tax (Second Amendment) Act, 1958.
32.	The Public Premises (Eviction of Unauthorised Occupants) Act, 1958.
32.	The Estate Duty (Amendment) Act, 1958.
34.	The Banaras Hindu University (Amendment) Act, 1958.
35.	The Manipur & Tripura (Repeal of Laws) Act, 1958.
36.	The Indian Medical Council (Amendment) Act, 1958.

37. The Rajghat Samadhi (Amendment) Act, 1958.
38. The Industrial Disputes (Banking Companies) Decision Amendment Act, 1958.
39. The Sea Customs (Amendment) Act, 1958
40. The Appropriation (No. 4) Act, 1958.
41. The Supreme Court Judges (Conditions of Service) Act, 1958.
42. The International Finance Corporation (Status Immunities and Privileges) Act, 1958.
43 The Trade and Merchandise Marks Act, 1958.
44. The Merchant Shipping Act, 1958
45. The Tea (Alteration in Duties of Customs & Excise) Act, 1958.
46. The High Court Judges (Conditions of Service) Amendment Act, 1958
47 The Poisons (Amendment) Act, 1958.
48. The Assam Rifles (Amendment) Act, 1958
49 The Appropriation (Railways) No. 4 Act, 1958
50 The Appropriation (Railways) No 5 Act, 1958.
51. The Appropriation No 5 Act, 1958
52. The Indian Tariff (Amendment) Act, 1958
53. The Foreign Exchange Regulation (Amendment) Act, 1958.
54 The Prevention of Disqualification (Amendment) Act, 1958.
55. The Salaries and Allowances of Members of Parliament (Amendment) Act, 1958
56 The Himachal Pradesh Legislative Assembly (Constitution and Proceedings) Validation Act, 1958
57. The Orissa Weights and Measures (Delhi Report) Act, 1958
58. The Representation of the People (Amendment) Act, 1958.
59. The Delhi Rent Control Act, 1958.

INDIAN MINISTRIES

FUNCTIONS AND ORGANISATION—SCOPE OF WORK

Functions of Govt. Ministries—The business of the Government is allocated under Article 77 (3) of the Indian Constitution. This allocation is made by the President on the advice of the Prime Minister. The items of business to each Minister are allotted. A Ministry is responsible for the formulation of the policy of the Government within its sphere of responsibility as well as for the execution of the policy. A Secretary or Secretaries are appointed as the administrative head of the Ministry. For the convenience of work, the Ministry is divided into Divisions, Branches, Sections, etc. under Deputy Secretaries, Under Secretaries, Section Officers, etc.

The Government of India Ministeries—The following are the Ministries of the Government of India—

1. Ministry of External Affairs.
2. Ministry of Defence.
3. Ministry of Finance.
4. Ministry of Home Affairs.
5. Ministry of Law.
6. Ministry of Commerce and Industry.
7. Ministry of Steel, Mines and Fuel.
8. Ministry of Railways.
9. Ministry of Transport and Communications.
10. Ministry of Labour and Employment.
11. Ministry of Food and Agriculture.
12. Ministry of Irrigation and Power.
13. Ministry of Education.
14. Ministry of Scientific Research and Cultural Affairs.
15. Ministry of Health.
16. Ministry of Information and Broadcasting.
17. Ministry of Works, Housing and Supply.
18. Ministry of Rehabilitation and Minority Affairs.
19. Ministry of Community Development.

Departments

Department of Parliamentary Affairs.
Department of Atomic Energy.
Partition Secretariat.
Cabinet Secretariat.
Planning Commissions.

1. Ministry of External Affairs—has the following subjects under its control—

(1) Foreign Affairs.

(2) Diplomatic and consular representation ; Indian Foreign Service ; Indian Foreign Publicity ;

(3) United Nations Organisation ; international conferences associations and other bodies.

(4) Treaties and agreements with foreign countries.

(5) Foreign jurisdiction and extradition.

(6) Emigration from India; pass-ports and visas and pilgrimage to places outside India.

(7) Administration of the North-East Frontier Agency and Naga Hills Tuensang Area.

(8) Administration of Pondicherry and other former French possessions in India.

The Ministry is also responsible for the administration of following laws—(*a*) Indian Emigration Act, 1922 (*b*) Reciprocity Act, 1943 (*c*)Port Haj Committee Act, 1932 (*d*) Indian Merchant Shipping Act 1923 in so far as it relates to pilgriim ships (*e*) Indian Pilgrim Ships Rules (*f*) Protection of Pilgrims Act 1887 (Bombay). (*g*) Protection of Mahomedan Pilgrims Act, 1896 (Bengal).

Ministry of Defence—The functions of the Ministry are as follows—

(a) Defence of India and every part thereof.

(b) Maintenance of Land, Naval and Air Forces of India including National Cadet Corps, Auxiliary Cadet Corps, Territorial Army and Lok Sahayak Sena.

(c) Formation of Cantonments, delimitation-excision of Cantonment areas, local self-government in such areas, the constitution of Cantonment Boards.

(d) Army, Navy and Air Force works including ordnance factories.

(e) Acquisition and derequisitioning of property for Defence Services.

(f) Union agencies and institutions for professional, vocational or technical training, for the Armed Forces and for promotion of special studies or research in relation to the Forces, Defence Science Organisation.

The Ministry of Finance—is responsible for the following functions :—

(1) Administration of the finances of the Central Government and dealing with finances affecting the whole country.

(2) Raising the necessary revenues for carrying on the administration and regulating the taxation and borrowing policies of the Government.

(3) Administration of problems relating to banking and currency and in consultation with the ministries concerned arranging for the proper utilization of the country's foreign exchange.

(4) Controlling the entire expenditure of the Government in cooperation with Ministries and Departments concerned.

Departments—The Ministry is organised into the following three Departments—(1) Department of Revenue (2) Department of Expenditure and (3) Department of Economic Affairs. *Department of Revenue* deals with Income-tax, Expenditure tax, Wealth tax and Estate Duty, customs, Central Excise, opium and narcotics and Central functions under the Indian Stamp Act. This is also known as Central Board of Revenue.

Department of Expenditure has the following four Divisions—(1) Establishment Division (2) Civil Expenditure Division (3) Special Re-organisation Unit (4) Defence Expenditure Division.

Department of Economic Affairs—has the following six Divisions —(1) Budget Division (2) Planning Division (3) Internal Finance Division (4) External Finance Division (5) Economic Division (6) Insurance Division.

Ministry of Home Affairs—deals mainly with '*Public Services*' and '*Public Security*'. The Ministry is also responsible for the teaching of Hindi to Central Government Servants in offices scattered throughout India. It is also responsible for the administration of Union Territories of Andaman and Nicobar Islands, Delhi, Himachal Pradesh, Laccadive, Minicoy and Amindivi Islands, Manipur and Tripura. In addition, the Ministry is also concerned with the welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes, improvement in Fire Services, Emergency Relief and Social Welfare Programmes. It also continues to deal with the residuary matters resulting from the Reorganisation of States.

Ministry of Law—The main functions of the Ministry are as follows—

(1) To advise the Ministries and Departments of the Government of India on all legal matters.

(2) To draft bills, ordinances and regulations and follow them up in all their stages up to their enactment and promulgation.

(3) To scrutinise statutory rules and orders from the legal and drafting points of view.

(4) To make arrangements for the publication of Central laws and other statutory rules and orders as and when necessary.

The Ministry of Law has been split up into two separate Departments—(1) *Legal Affairs Department*—This Department deals with the advisory and conveyancing work, arrangements for the conduct of Government litigation and matter relating to Election Commission and the Income-tax Appellate Tribunal. (2) *The Legislative Department* deals with legislative drafting, co-ordination between the Centre and the States in legislative drafting, publication of central laws, implementation of the recommendations of the Law Commission relating to statute law revision and legislative subjects allotted to the Ministry.

Ministry of Commerce and Industry—is responsible for the regulation and fostering of trade and commerce, the control and regulation of imports and exports, negotiation of trade agreements with foreign countries, determination of tariffs, commercial representation overseas, promotion of exports, and participation at Government level in fairs and exhibitions held abroad. On the Industries side, the Ministry's activities include the encouragement and ordered development of large and small industries in the private and public sectors, assistance to industries, development and control of plantation industries and active promotion of overall industrialisation. The Ministry also exercises control over production, distribution, and prices of certain essential commodities like cement and are also responsible for the Regulation of "Forward Trading".

Almost the entire field of privately owned industries, and industries of the public sector, including small scale industries and plantation industries are under the charge of this Ministry.

Ministry of Steel, Mines and Fuel—This Ministry which was formed in 1957 consists of the following Departments—

(1) Department of Iron and Steel.
(2) Department of Mines and Fuel.

The Department of Iron and Steel deals exclusively with iron and steel projects of the Government. In addition, this Ministry is responsible for the two steel works in the private sector, namely, Tata Iron and Steel Co., and the Indian Iron and Steel Co., as well as for the production and distribution of iron and steel in the country.

The Steel plants of the Government are (1) Rourkela Steel Project (2) Bhilai Steel Project and (3) Durgapur Steel Project.

The Steel plants in the private sector with which this Department is concerned due to the Government of India's guaranteering foreign loan or advancing money are (1) Tata Iron and Steel Company (2) Indian Iron and Steel Company and also Mysore Iron and Steel Works at Bhadravati.

The Department of Mines and Fuel is concerned with the following offices and organisations—(1) Geological Survey of India (2) Indian Bureau of Mines (3) Oil and Natural Gas Commission (4) Office of the Coal Controller (5) Coal Board (6) National Coal Development Corporation (7) Neyveli Lignite Corporation.

This Department is responsible for the following—(i) Mines and Minerals (including the Indian Bureau of Mines, special mining projects and the Geological Survey of India (ii) fuels including coal, oil and natural gas (including exploration, drilling existing and future refineries, distribution and pricing).

Ministry of Railways—The function of the Ministry of Railways is performed by the Railway Board. The Railway Board exercises all the powers of the Central Government in respect of regulations, construction, maintenance and operation of Railways. The Railway Board consists of a Chairman and four members, one of whom is the Financial Commissioner and the three other members of the Railway Board are in charge of the following, namely, Staff, Transportation and Engineering. There are also Five Additional members in-charge of works, mechanical, commercial, finance and staff matters respectively.

The Chairman of the Railway Board is the *ex-officio* Secretary to the Government of India in the Ministry of Railways.

Ministry of Transport and Communications—This Ministry has now two Departments—(A) *Department of Transport* (B) *Department of Civil Aviation and Communications.*

The Department of Transport is responsible for following subjects—

(a) Road Transport (including Delhi Transport Service) and Road Development.
(b) Major Ports.
(c) Maritime Shipping and Light-houses.
(d) Inland Waterways and Inland Water Transport.
(e) Tourism.
(f) Hindusthan Shipyard.

The Department of Civil Aviation and Communications are responsible for the following—

(a) Civil Aviation and Air Transport Industry.
(b) Posts and Telegraphs and Telephone Industries.
(c) Meteorology.
(d) Railway Inspection.
(e) Overseas Communications.
(f) Wireless Planning and Co-ordination.

The subjects are administered through the following organisations under respective Heads—(1) Civil Aviation Department (Director-General of Civil Aviation (2) Air Transport (Indian Airlines and Air India International Corporations (3) Posts and Telegraphs Department (Director-General of Posts and Telegraphs) (4) Wireless Planning and Co-ordination Organisation (5) Indian Meteorological Department (Director-General of Observatories) (6) Overseas Communications Service (Director-General, Overseas Communications Service) (7) Railway Inspectorate (8) Indian Telephone Industries, Private Ltd.

The Ministry of Labour and Employment—has the responsibility of the following subjects—

(i) Labour Welfare and Trade Unions.
(ii) Industrial and Labour Disputes.
(iii) Factory Labour.
(iv) Unemployment Insurance and Health Insurance, etc.
(v) Labour employed in Railways, major ports, mines and oil fields.
(vi) Resettlement of demobilised soldiers and discharged man workers.
(vii) Participation in the International Labour Conference and work connected with it.

Ministry of Food and Agriculture is comprised of two Departments—(1) *Agriculture* (2) *Food. The Department of Agriculture* is responsible for the following functions—

1. Agricultural Production.
2. Agricultural Research, Education and Extension.
3. Animal Husbandry, Fisheries and Forestry.
4. Fruit and Vegetable Products Industry.
5. Agricultural Economics and Statistics.
6. Agricultural Development.
7. Liaison with Food and Agriculture Organisation of the United Nations and other International Organisations and economic aid in the agricultural sector.
8. Procurement and Distribution of Fertilizers.
9. Agricultural Marketing.
10. Co-operation.
11. Land Reclamation.
12. Tube-well and minor irrigation.
13. Soil Conservation.

Department of Food has the following functions—

1. Procurement of food-grains for civil and military requirements.

2. Distribution of imported food-grains to States.

3. Co-ordination, planning and guidance in regard to food policy from an all-India point of view.

4. Regulating import and export of food-grains.

Ministry of Irrigation and Power—Besides laying down the general policy for the development of water and power resources, the Ministry performs the following among other functions—

(1) Watching the progress of the projects in the Irrigation and Power Sector and of costs against estimates.

(2) Examination of schemes formulated by the States for inclusion in the Plan.

(3) Formulation of integrated flood control programmes in consultation with the States which have a flood problem and assistance to the States in executing flood protection works.

(4) Training of operators of earth-moving machinery.

So, the Ministry is responsible for the following functions—(1) Power (2) Irrigation (3) Flood control (4) River Valley Projects.

Ministry of Education—has the responsibility under the following heads—

General Educational Development : University, Secondary, Primary, Pre-Primary and Basic Education ; Central Universities ; Central Bureau of Text-book Research ; Central Bureau of Educational and Vocational Guidance ; Public Schools ; Central Educational Library ; Delhi Public Library ; National Book Trust ; Central Social Welfare Board ; UNESCO ; Various Schemes of Scholarships ; Development of Hindi ; Publications, Information and Statistics ; National Institute of Basic Education ; National Fundamental Education Centre ; All India Council of Secondary Education ; Central Institute of Education ; Training Centre for Adult Blind ; Central Braille Press and University Grants Commission.

Ministry of Scientific Research and Cultural Affairs has the following subjects under its charge :—

Cultural Activities : Sangeet Natak Akademi ; Lalit Kala Akademi ; Sahitya Akademi ; National Theatre ; Compilation of the Gazetteer ; History of the Freedom movement, Copyright ; Indology ; Museum ; Youth Welfare and Physical Culture ; Sports ; Cultural Relations with other countries ; Indian Council for Cultural Relations ; Department of Archaeology ; Department of Anthropology ; National Archives of India ; National Gallery of Modern Art ; Indian War Memorial Museum ; National Library Calcutta ; Central Secretariat Library.

Scientific Research : Technical and Scientific Education ; Vigyan Mandirs ; All Polytechnics ; All India Council for Technical Education; Delhi School of Town and Country Planning ; Indian Institute of Technology, Kharagpur and similar Institutes ; Indian Institute of Science, Bangalore ; Compilation of National Atlas ; Geological Survey of India ; Survey of India ; Central Board of Geophysics ; Botanical Survey of India ; Zoological Survey of India.

Ministry of Health—is responsible for the following functions—

(1) Administration of central health institutions.

(2) Promotion of medical research, regulation and development

of medical pharmaceutical, dental and nursing professions in consultation with the State Governments and the Statutory Councils concerned and laying down the standards of education for these professions.

(3) Establishment and maintenance of drugs standards in consultation with the State Governments, and prevention of adulteration of food.

(4) Promoting investigations into particular health problems.

(5) Promoting through the Central Council of Local Self-Government and otherwise, discussions and exchange of information on problems relating to Panchayats and other local bodies.

(6) International health relations and administration of port quarantine.

Ministry of Information and Broadcasting—functions through a number of constituent units, such as—

(1) Press Information Bureau.
(2) All India Radio.
(3) Films Division.
(4) Directorate of Advertising and Visual Publicity.
(5) Publications Division.
(6) Field Publicity Units.
(7) Research and Reference Division.
(8) Registration and Statistics of Newspapers.

Ministry of Works, Housing and Supply—This Ministry has the following functions—

(1) Public Works.
(2) Housing.
(3) Accommodation.
(4) Purchase and disposal of Government Stores.
(5) Printing and Stationery.
(6) Explosives and Boilers.

Ministry of Rehabilitation and Minority Affairs has the following functions under its charge—

(1) Arrangement for Relief and Rehabilitation.
(2) Administration of Evacuee Property.
(3) Settlement of claims and grants of compensation.

Ministry of Community Development has the following main functions—

To secure the fullest development of the material and the human resources of the rural areas through co-operative effort of the people themselves in rebuilding the village community of India assisted by the Government of India. This Ministry is responsible for the overall control of the programme, namely, planning, directing and co-ordinating Community Development activities throughout India.

Department of Parliamentary Affairs is responsible for the following functions—

(1) Fixing the dates of the commencement and the duration of the sessions of the both Houses of Parliament;

(2) Planning Government's legislative programme in each House and obtaining the opinion of concerned Ministries and determining Government's stand on non-official bills and resolutions in either House.

(3) Advising Ministries on parliamentary matters and procedure.

(4) Maintaining liaison between the Ministries and the two Houses of Parliament.

(5) Extracting from the proceedings of both Houses statements involving assurances, promises or undertakings of given by Ministers in replies to questions during debates ; ensuring their implementation by the Ministries concerned.

(6) Suggesting names for Select Committees and other Committees, Commissions, Delegations, etc.

(7) Dealing with matters concerning salary and allowances of the members of Parliament, the Chairman and the Speaker respectively.

(8) Keeping touch with the State Legislatures and the State Legislative Departments in respect of their legislative procedures and programmes.

(9) Rendering secretarial assistance to the Parliamentary and Legal Affairs Committee of the cabinet.

Department of Atomic Energy—This is a new Department under the Prime Minister of India for looking after—

(1) All the business of the Government of India relating to atomic energy.

(2) All the functions of the Central Government under the Atomic Energy Act 29 of 1948.

The Atomic Energy Commission now functions under this Department.

INDIAN PARLIAMENT

Indian Parliament—It consists of two Houses. The Upper House is known as Rajya Sabha (Council of States) and the Lower House known as Lok Sabha (House of the People). These two Houses and the President together constitute the Parliament of India.

Rajya Sabha—Consists of not more than 250 members of whom 12 are nominated by the President and the rest elected who are representatives of States and Union Territories. The Rajya Sabha is not subject to dissolution, one-third of its members retiring on the expiration of every second year and their place is taken by new members. The elections to the Sabha are indirect. Each State Assembly chooses its representatives according to a system of proportional representation by means of the single transferable vote. Where there are no Assemblies, the members are elected by Electoral Colleges.

Lok Sabha—This consists of 500 members directly elected on the basis of adult franchise excluding the 20 seats allotted to the Union Territories and two members of the Anglo-Indian Community to be nominated by the President, if he is of the opinion that the community is not adequately represented in the Lok Sabha. The number of seats in each State is so allotted that the ratio between the number and the population of the State is, as far as practicable, the same in all States.

Department of Parliamentary Affairs—This Department was set up in 1949. The functions and organisation of this Department are as follows—

1. Fixing the dates of the commencement and duration of the sessions of the Lok Sabha and the Rajya Sabha.

2. Planning Government's legislature programme in each House and obtaining the opinion of concerned Ministries and determining Government's stand on non-official bills and resolutions moved in either house.

(3) Advising the Ministries on parliamentary matters and procedure.

(4) Maintaining liaison between the Ministries and the two Houses of Parliament.

(5) Extracting from the proceedings of both Houses statements involving assurances, promises or undertakings given by Ministers in replies to questions ; ensuring their implementation by Ministries concerned.

(6) Suggesting names for select committees and other committees, commissions, Delegations etc.

(7) Dealing with matters concerning salary and allowances of the members of Parliament, the Chairman and the Speaker respectively.

(8) Keeping in touch with State Legislatures and State Legislative Departments in respect of their legislative procedures and allied matters.

(9) Rendering secretarial assistance to the Parliamentary and Legal Affairs Committee of the Cabinet.

Officers of the Parliament—The Principal officers of the Parliament are : Chairman and Deputy Chairman of the Rajya Sabha and the Speaker and Deputy Speaker of the Lok Sabha. The Chairman and the Speaker preside over the respective Houses, act as the their representatives and guardians of their liberties. They interpret the Rules of the Houses and are the final authority on the procedure to be followed in the respective Houses or any of their Committees.

Powers & Privileges—(1) *Legislative Powers*—The Parliament has exclusive authority to make laws on the subjects mentioned in the *Union List*. The laws enacted by the Parliament relating to the items in the *Concurrent List* shall prevail over the corresponding legislation by the States. The residuary power is thus vested in the centre. Even in regard to the *State List*, over to which the States have exclusive jurisdiction, Parliament can assume authority if Rajya Sabha recommends by two third majority that such legislation is in the national interest or two or more States mutually agree that Parliament may do so or it is necessary to implement treaties or international conventions.

(2) *Executive and Judicial Powers*—Parliament controls the Executive through votes of censure and adjournment motion. It can refuse to pass law required by the Government. It can refuse to give sanction to an Ordinance issued by the President. As for judicial power, no court in India has any jurisdiction over it. The Parliament

may order the arrest of any person and try him for the contempt of Parliament or for breach of its privileges.

Privileges—(1) *Freedom from arrest.* This is of a civil nature and operates during sessions of Parliament and 14 days before and after. A member of the Parliament cannot be arrested inside Parliament, even if he is wanted in a criminal case (2) *Power to summon persons.* The Houses and their Committees have the right to summon any person to give evidence, information or to answer a charge. Disobedience is punishable by the House. (3) *Power to punish for breach of privilege.*—The Parliament can try and punish any person for contempt or breach of parliamentary privileges, whether committed inside or outside. (4) *Right to regulate affairs*— (5) *Rights to exclude strangers.*

Committees of the Parliament—There are two classes of Parliamentary Committees—*Ad hoc* Committee and *Standing Committee. Ad hoc* Committees are the Select and Joint Committees on Bills and they are also formed on other matters for specific purpose. The Committees cease to exist when the assigned task is finished. Each House has a number of Standing Committees which are of permanent nature. The following are the Standing Committees.

1. *Estimtes Committee*—It has 30 members elected annually by Lok Sabha from amongst its members. The Committee examines the estimates of the various Ministries, Departments, or projects of the Government as well as undertakings in the public sector and reports on economics, improvements in organisation, efficiency or administrative reform. This Committee functions under the guidance of the Speaker.

2. *Public Accounts Committee*—The Committee consists of 15 members elected by the Lok Sabha and seven members of the Rajya Sabha. The function of the Committee is to examine the accounts showing the appropriation of sums granted by the House for expenditure by the Government of India, the annual Finance Accounts of the Government of India and such other accounts laid before Parliament as the Committee may deem fit.

3. *Business Advisory Committee*—The business of the House is settled by the Committee before the session starts. It has 15 members nominated by the Speaker from the main parties in the House.

4. *Committee on Petitions*—This Committee examines the petitions sent to the House by the citizens of India. The Committee's main function is to report on all petitions.

5. *Committee of Privileges*—is a parliamentary committee nominated by the Speaker. Its function is to examine every question involving breach of privilege of the House or of the members or of any Committee thereof referred to it by the House or by the Speaker.

6. *Rules Committee*—The function of this Committee is to consider matters of procedure and conduct of business in the House.

7. *Committee on Private Member's Bills and Resolutions*—This Committee is nominated by the Speaker. The function of the Committee is to consider Private Members' Bills and Resolutions and sug-

gest fixation of time limits and other ancillary matters to regulate debates regarding 'bills' and 'resolutions'.

8. *Committee on Subordinate Legislation*—It consists of 15 members nominated by the Speaker. It has authority to investigate and report whether the powers delegated by Parliament have been properly exercised within the framework of the statute delegating such powers.

9. *Committee on Government Assurances*—The Committee scrutinises the assurances, promises, undertakings, etc., given by the Ministers from time to time on the floor of the House and to report on the extent to which such promises, undertakings, etc., have been implemented and where implemented, whether such implementation has taken place within minimum time necessary for the purpose.

10. *House Committee* deals with questions relating to the housing of the members.

11. *Library Committee*—advises the Speaker on matters relating to the Library of the House.

Parliamentary Secretariats—There are two separate Parliamentary Secretariats—one for Lok Sabha and another for Rajya Sabha. They are known as Lok Sabha Secretariat and Rajya Sabha Secretariat. The Secretariats have several branches dealing separately with each function of the Houses, such as Questions Branch, Legislative Branch, Private members Business Branch, Editorial Branch, Research & Reference Branch, etc. The Secretariat maintains a research and reference service.

USEFUL INFORMATION

NEW METRIC SYSTEM OF WEIGHTS & MEASURES

This system is known as 'metric' system because it uses the 'metric' as the primary unit. In this integrated system, the various units of length, surface, volume, capacity or mass always bear a strictly decimal relation to each other. For its different multiple units, the metric system uses Greek prefixes like deca (ten times), hecto (hundred times) and kilo (thousand times). For the sub-multiples are used the Latin prefixes, *deci* (one fourth), *centi* (one-hundreth) and *mille* (one thousands). These six prefixes, along with main units, namely, metre (for length), litre or cubic decimetre (for capacity), cubic metre (for volume), gram (for mass), square metre (for area) and hectare or sq. hectometre (for land measurement) constitute terminology for the metric system.

An Act known as the *Standards of Weights and Measures Act* 89 of 1956 has been passed by the Indian Parliament. This Act while authorising the Government of India to introduce the metric system also lays down, it will 'come into force on such date, not being later than 10 years from the passing of the Act.' Beginning with a limited field, the system will be extended gradually to cover all branches of trade and industry and is expected to be fully established in the country by 1966.

Conversion Factors.

Length					
Kilometre	=	0.62 Mile	Mile	=	1.61 Kilometres
Metre	=	1.09 Yards	Yard	=	0.91 Metre
Centimetre	=	0.39 Inch	Inch	=	25.4 Milimetre
Milimetre	=	0.04 Inch			
Area					
Square kilometre	=	2.47 Sq. mile	Sq. mile	=	2.59 Sq. k. m.
Hectare (10,000 sq. metres)	=	2.47 Acres	Acre	=	0.40 Hectare
Square metre	=	1.20 Sq. Yards	Sq. Yard	=	0.84 Sq. metre
Volume					
Cubic metre	=	1.31 Cu. Yds.	Cubic Yard	=	0.76 Cu. metre
Weights					
Metric Tonne	=	0.98 Ton	Ton	=	1.02 Metric Tonnes
Quintal	=	1.97 Hundred weights			
			Hundred-weight	=	0.51 Quintal
Quintal	=	2.68 Maund	Maund	=	0.37 Quintal
Kilogram	=	1.07 Seers	Seer	=	0.93 Kilogram
Kilogram	=	2.20 lbs.	Pound	=	0.45 Kilogram
Gram	=	0.09 Tola	Tola	=	11.66 Grams

CAPITAL GAINS TAX

This tax is applicable to capital gains resulting from the sale, exchange or transfer of capital assets and arising on or after April 1, 1956. No capital gains tax is, however, payable by a person (not being a company) if the capital gains during the year are less than Rs. 5,000. It is also not payable if the capital gains together with the other income of the assessee do not exceed Rs. 10,000. The tax is imposed only on realised capital gains and not on the accrued profits. Capital gains arising from the sale of agricultural land or sale of personal effects and household goods are exempted from this tax. Persons owning residential houses are not liable to this tax if they make capital gains on the sale of such a house provided the sale is effected for the purpose of acquiring another residential house. The capital gains are taxed at the rate of income-tax applicable to the total income after including therein only one-third of the capital gains.

RATES OF ESTATE DUTY

Part I

In the case of any property which passes or is deemed to pass on the death of the deceased—

		Rate of Duty
(1) on the first Rs. 50,000 of the principal value of the estate		Nil
(2) on the next Rs. 50,000	„	6 per cent
(3) on the next Rs. 50,000	„	7 „ „
(4) on the next Rs. 50,000	„	10 „ „
(5) on the next Rs. 1,00,000	„	12 „ „
(6) on the next Rs. 2,00,000	„	15 „ „
(7) on the next Rs. 5,00,000	„	20 „ „
(8) on the next Rs 10,00,000	„	25 „ „
(9) on the next Rs 10,00,000	„	30 „ „
(10) on the next Rs. 20,00,000	„	35 „ „
(11) on the balance	„	40 „ „

Part II

If the case of shares or debentures held by the deceased in any company as referred to in S. 20A—

	Rates of duty
(1) If the principal value of the shares or debentures does not exceed Rs. 500 ..	Nil
(2) If the principal value of the shares or debentures exceeds Rs. 5,000 ..	7½%

RATES OF WEALTH TAX

Part I

	Rate of tax
(a) In case of every individual—	
(*i*) on the first Rs. 2 lakhs of net wealth	Nil
(*ii*) on the next Rs. 10 lakhs of net wealth ..	½%
(*iii*) on the next Rs. 10 lakhs of net wealth ..	1 %
(*iv*) on the balance of net wealth ..	1½%
(b) In the case of every Hindu undivided family	
(*i*) on the first Rs. 4 lakhs of net wealth	Nil
(*ii*) on the next Rs. 9 lakhs of net wealth ..	½%
(*iii*) on the next Rs. 10 lakhs of net wealth ..	1 %
(iv) on the balance of net wealth ..	1½%

Part II

In the case of every company—	
(*i*) on the first Rs. 5 lakhs of net wealth	Nil
(*ii*) on the balance of net wealth ..	½%

On certain conditions specified in the Schedule of the Act.

RATES OF EXPENDITURE TAX

In the case of every individual and Hindu undivided family, on that portion of the taxable expenditure—

(*i*) which does not exceed Rs. 10,000	10%
(*ii*) which exceeds Rs. 10,000 but dues not exceed Rs. 20,000	20%
(*iii*) which exceeds Rs. 20,000 but does not exceed Rs. 30,000	40%
(*iv*) which exceeds Rs. 30,000 but does not exceed Rs. 40,000	60%
(*v*) which exceeds Rs. 40,000 but does not exceed Rs. 50,000	80%
(*vi*) which exceeds Rs. 50,000	100%

GIFT TAX RATES

		Rates
(1)	on the first Rs. 5,000 of the value of all taxable gifts ..	4%
(2)	on the next Rs. 50,000 of the value of all taxable gifts ..	6%
(3)	on the next Rs. 50,000 of the value of all taxable gifts ..	8%
(4)	on the next Rs. 50,000 of the value of all taxable gifts ..	10%
(5)	on the next Rs. 1,00,000 of the value of all taxable gifts	12%
(6)	on the next Rs. 2,00,000 of the values of all taxable gifts	15%
(7)	on the next Rs. 5,00,000 of the value of all taxable gifts	20%
(8)	on the next Rs. 10,00,000 of the value of all taxable gifts	25%
(9)	on the next Rs. 10,00,000 of the value of all taxable gifts	30%
(10)	on the next Rs. 20,00,000 of the value of all taxable gifts	35%
(11)	on the balance of the value of all taxable gifts ..	40%

INDIAN STATISTICS

STERLING BALANCES WITHDRAWALS 1950-57

The net amount withdrawn from or added to India's sterling balances since 1950.

(*In Crores of Rupees*)

	Level of sterling balances	*Net amount withdrawn (—) and added (+)*			
1949	826.28	—	1954	730.79	+8.32
1950	834.42	+8.14	1955	735.18	+4.39
1951	781.09	—53.33	1956	529.91	—205.27
1952	705.49	—75.60	1957	297.65	—232.26
1953	727.47	+21.98			

(*Lok Sabha, March* 8, 1958).

BORROWINGS BY STATE GOVERNMENTS

(*upto March* 31, 1957 *from the Central Government*)

	Rs. in lakhs		
Andhra Pradesh ..	62,15	Orissa ..	78,93
Assam ..	22,24	Punjab ..	1,92,84
Bihar ..	62,94	Rajasthan ..	34,20
Bombay ..	86,42	Uttar Pradesh ..	1,14,98
Kerala ..	11,54	West Bengal ..	1,53,55
Madhaya Pradesh ..	48,21	Jammu & Kashmir ..	4,97
Madras ..	84,01		
Mysore ..	23,54		9,80,52

MILEAGE OF NATIONAL HIGHWAYS

States	*Mileage*	*States*	*Mileage*
Andhra	1412	Madras	1050
Assam	796	Manipur	98
Bihar	1189	Mysore	536
Bombay	2192	Orissa	851
Delhi	44	Punjab	795
Himachal Pradesh	222	Rajasthan	450
Jammu and Kashmir	328	Sikkim	39
Kerala	260	Uttar Pradesh	1423
Madhaya Pradesh	1404	West Bengal	938

INDIAN EMPLOYEES IN FOREIGN FIRMS

(On salaries of Rs. 1,000 or over)

	Indians	*P.c.*	*Total*		*Indians*	*P.c.*	*Total*
1947	504	7.9	6,348	1954	3,346	32.3	10,354
1948	742	10.4	7,102	1955	3,995	37.0	10,805
1949	1,085	13.9	7,794	1956	4,685	41.6	11,251
1950	1406	17.0	8,277	1957	5,614	48.2	11,639
1951	1,784	20.4	8,737	1958	6,704	54.3	12,356
1952	2,290	24.4	9,394				

PRINTING PRESSES & PUBLICATIONS

	No. of Printing Presses	*In English & other European Languages*	*In Indian Languages*
1948-49 (*a*)	9,533	1,805	7,335
1949-50 (*a*)	10,655	1,950	8,934
1950-51 (*b*)	11,737	2,312	18,377
1951-52 (*c*)	11,966	2,186	10,374
1952-53	12,574	2,573	11,929
1953-54 (*d*)	11,954	2,599	11,423

(*a*) excludes figures of Rajasthan and Vindya Pradesh.
(*b*) excludes figures of Rajasthan.
(*c*) excludes figures of Manipur and some districts of Rajasthan.
(*d*) excludes figures of Andhra, Hyderabad, Madhya Bharat, Mysore, Saurashtra and Manipur.

INDIA'S DEFENCE EXPENDITURE

(*In Crores of Rupees*)

	Total		
		1955-56	205.96
1951-52	196.45	1956-57	211.85
1952-53	198.34	1957-58 (Revised estimate)	290.98
1953-54	208.22		
1954-55	209.81	1958-59 (Budget estimate)	305.14

INDIA IN WORLD ECONOMY

Average Size of Family Holding

		Acres			*Acres*
India	..	7.5	Germany	..	21.5
U.K.	..	20.0	Holland	..	26.0
France	..	20.0	U.S.A.	..	145.0

P.c. of Population Dependent on Land

India (1951)	..	72	France (1946)	..	25
Japan (1952)	..	44	U.S.A. (1955)	..	15
Italy (1944)	..	44	U.N. (1955)	..	5
Canada (1951)	..	20			

World Roads

	Total length (000 miles)	*Road length per one lakh of population*		*Total length (000 miles)*	*Road length per one lakh of population*
India	272.4	71	S. Africa	94.2	716
Australia	516.6	5,861	U.K.	188.1	367
Canada	524.1	3,546	U.S.A.	3,394.6	2,127

World Telephones, 1955

India	..	2,78,000	Canada	..	4,147,000
Australia	..	1,587,000	U. K.	..	6,830,000
Japan	..	3,123,000	U. S. A.	..	56,243,000

Per Capita Generation of Electricity (Kwh)

India	..	22	Australia	..	1,429
Japan	..	589	U. K.	..	1,592
France	..	752	U. S. A.	..	3,310
USSR	..	850	Canada	..	4,673
West Germany	..	933	World	..	572

World Livestock (*in millions*)

		Cattle	*Buffalo*	*Sheep*	*Horses & ponies*
India (1956)	..	159	45	39	1.5
U. S. (1954-55)	..	97	..	32	3.0
U.S.S.R. (1954-55)	..	67	..	125	..
China (1954-55)	..	66	..	84	..
Australia (1954-55)	..	16	..	130	..

World Motor Cars 1955

(Passenger Cars & Commercial Vehicles in thousands)

India	..	330.4	Italy	..	1,220
Australia	..	1,997	Japan	..	439.9
Canada	..	3,912	Sweden	..	755.2
France	..	4,820	U. K.	..	4,732
West Germany	..	2,909	U. S. A.	..	62,020

World Radios, 1956

	No. of radio stations	*No. of radio owners*		*No. of radio stations*	*No. of radio owners*
India	27	946,000	W. Germany	262	13,325,000
Australia	160	2,051,000	U. K.	51	14,248,000
Canada	246	8,080,000	U.S.A.	3,364	138,700,000
Japan	157	13,000,000			

Gold & Foreign Exchange Reserves in Central Banks, 1955

(In Crores of Rupees)

	Gold reserves	*Foreign exchange*		*Gold reserves*	*Foreign exchange*
India	117.6	735.2	Sweden	131.4	92.4
Pakistan	22.9	153.3	U. K.	1,009.5	..
Italy	167.6	421.4	Union of S. Africa	101.0	74.3
Canada	540.0	369.5			
Switzerland	760.5	..	U. S. A.	10,358.1	*not available*

National Income

		1950 Total income *(crore Rs.)* 1950	1950 per capita income *(rupees)* 1950	1955 Total income *(crore Rs.)* 1955	1955 per capita income *(crore Rs.)* 1955
India	..	9,530.0	265	9,650.0	252
Australia	..	3,245.0	3,606	4,520.5	5,651
Canada	..	6,093.1	4,352	9,915.5	6,197
Ceylon	..	384.0	548	517.2	753
France	..	9,928.5	2,309	16,924.3	3,936
West Germany	..	8,100.0	1,688	14,340.0	2,683
Italy	..	5,230.0	1,113	8,000.0	1,683
Japan	..	4,450.0	536	8,990.0	1,010
Pakistan	..	2,468.1	325	n. a.	n. a.
U. K.	..	14,168.0	2,833	20,301.3	3,981
U.S.A.	..	114,285.7	7,568	154,285.7	9,351

World's Natural Rubber Production, 1956*

(000 *Metric tons*)

World	1,918.0	Nigeria†	38.7
Indonesia	697.2	Belgian Congo†	32.5
Malaya Fed.	637.2	Brazil	24.1
Thailand†	135.8	India	23.8
Cambodia & Vietnam	102.4	N. Borneo & Brunei†	21.6
Ceylon	97.2	Burma†	13.2
Liberia†	39.0	Papua & New Guinea†	3.8
Siberia†	39.0	Cameroun†	3.0

*Main countries.

†Net Exports.

World Tea Production, 1957

(*In million lb.*)

India	668	Indonesia	100
Ceylon	395	Formosa	34
Pakistan	45	Other countries	104
Japan	150		

World Cotton Yarn Production, 1956

(000 *metric tons*)

India	757.2	Italy	153.6
Japan	493.2	Pakistan	136.2
German Fed. Rep.	396.2	Poland	115.8
United Kingdom	318.0	Belgium	108.0
France	280.8	Argentina	101.3

OUTSIDE ASSISTANCE

The role of external assistance in the implementation of the Five-Year Plan has been stated as follows :—"the role of external assistance in relation to the Plan will be to supplement the real resources of the country with commodities for which additional demands will be generated in the process of development but the domestic supplies of which are limited. External assistance would help to avoid dislocations and to maintain a certain measure of stability in the economy."

External assistance has been received by India since 1951. The guiding principle in the acceptance of this assistance has been that it is only intended to supplement the resources of the country in the implementation of the Five-Year Plans and is to be primarily marginal in character. India has received substantial technical and financial assistance from these different sources.

Apart from the wheat loan from the U.S.A., wheat grants from Canada and Australia and the aid from the U.S.A. for procurement of commodities, the pace of utilisation of external assistance during the first four years of the Plan has rather been slow than it was thought of. Most of the economic aid has taken the form of special equipment and supplies not available locally. But for this help, the development programmes would have been hampered or slowed down. Finally the services of technical experts have been placed at the disposal of our development projects as well as training facilities for our students abroad.

The foreign assistance to India comes from the following sources :—

(1) Aids from United Nations and subsidiary bodies ;
(2) Loans from World Bank ;
(3) Aids from United States of America ;
(4) Colombo Plan aids from—(a) Australia, (*b*) Canada, (*c*) New Zealand.
(5) Aids from Norway through United Nations ;
(6) Aids from Foundations ;
(7) Aids from Private parties.
(8) Russian aids and loans.
(9) Rumanian aid
(10) Japanese Aid.
(11) Aid from West Germany.

1. INTERNATIONAL BANK OF RECONSTRUCTION AND DEVELOPMENT AND WORLD BANK

1. *Aids from International Bank of Reconstruction*—Upto November 1957, India had received loans from the Bank totalling Rs. 176.05 crore. The schemes for which the loans were

given are as follows—(1) purchase of locomotives for the Indian railways (2) purchase of agricultural machinery such as tractors and bull-dozers required for reclamation of weed-infested and jungle lands (3) Bokro-Konar Project of D. V. C. (4) Second phase of D. V. C. Project (5) purchase of planes by Air India International (6) purchase of equipment and materials for railways (7) expansion and modernisation of Indian Iron and Steel Co. Ltd. (8) installation of thermal plants at Trombay (9) assistance to Industrial Credit and Investment Corporation of India (10) expansion programme of the Tata Iron and Steel Co.

2. *The World Bank* loans to India during the fiscal year which ended June 30, 1957 totalled 34,400,000 dollars and constituted one of the largest sums made available to any country during the period. *The first loan* announced in Dec. 1956 totalled 20 million dollars and went to *Indian Iron and Steel Company.* During March, the Bank loaned to *Air India International* 5.6 million dollars to help finance the dollar costs of three loan-ranged jet passenger airplanes. Air India also borrowed an additional 11.2 million dollars from five U.S. Commercial Banks to help finance the aircraft purchase. It was the first direct borrowing in the United States market.

Another loan announced in May, 1957 totalled 9.8 million dollars for extension of the *Trombay Thermal Electric Power Plant* near Bombay. The borrowers were Tata Hydro-Electric Power Supply Co. Ltd., Andhra Valley Power Supply Co. Ltd., and Tata Power Co. Ltd.

In 1958 the World Bank has approved of a loan equivalent to 85 million dollars to India to help meet the foreign exchange costs of a programme to improve and expand Indian Railways.

2. COLOMBO PLAN

The Colombo Plan was organised at Colombo in 1950 as a British Commonwealth venture "for a cooperative economic development of South and Southeast Asia". The region with 660,000,000 people is economically backward, some politically unstable and therefore potentically vunerable to various ailments. The Plan is consultive in character—each nation does what it can to further regional development but acts independently. The contributors to the Plan, called "donors" are Britain, Canada, Australia, New Zealand, United States and Japan. The recipients are India, Malaya, Thailand, Philippines, Pakistan, Burma, Ceylon, Laos, Nepal, South Vietnam, Indonesia and the three British dependencies of Singapore, Sarawak and North Borneo. Since its inception, donors have contributed about $ 5 billion in grants, loans and credits for irrigation, hydro-electric power and other projects, 4 billion coming from U. S.

The Colombo Report of 1957—This report which was issued at the end of December 1958, shows that the 15 Colombo Plan countries of South and South East Asia had incurred an estimated expenditure of nearly £ 1,700 million (about Rs. 2,210 crores) on the development in the public sector. The budgeted expenditure for 1958 is over £ 1,800 million (about Rs. 2,340 crores). India's share was £ 963.5 (about Rs. 1,251.9 crores) for 1957-58. This represents more than half of the total expenditure for the whole to the 15 recipient countries of the area.

Regarding India's aid to other countries, the Report says India has continued to give technical and economic assistance to Nepal and incurred an expenditure to about Rs. 7.5 million on development schemes and provision of services of technical personnel. India incurred an expenditure of about Rs. 2 million on the construction of Tribhuvan Rajpath in Nepal. The construction of the Kathmandu -Trisuli Bazar Road was almost complete and work on the improvement of air strips at Pokhara, Bhairawa and Biratnagar had been taken up.

India had, since the start of the Colombo Plan provided training facilities under Technical Co-operation Scheme for 886 nominees in various subjects. They came from Australia, Burma, Ceylon, Indonesia, Japan, Malaya, Nepal, New Zealand, North Borneo, Pakistan, Philippines, Singapore, Thailand and Vietnam.

Australian Aid—(1) Supply of wheat and flour valued at Rs. 8.7 crores in 1951-52, the period of India's acute food shortage.

(2) Counterpart funds obtained by the Central Government from the sale of this produce (wheat and flour) were applied to the progress of the Tungabhadra Project in Mysore and Andhra Pradesh.

(3) Supply of earthmoving equipment and electrical installations for Tungabhadra and Ramagundam Projects.

(4) Supply of 2,000 rail wagons for India's metre gauge lines and 24 diesel rail cars worth altogether Rs. 5 crores.

(5) 11 transmitters and studio and other equipments for All-India Radio valued at approximately Rs. 1 crore.

(6) Experimental and research equipment for research institutions dealing with rice, plant protection, wool testing, and dairying.

(7) Six mobile vans to the Ministry of Education and 40 sets of reference books.

(8) A fully equipped hospital vessel and floating dispensary for scattered population of Andaman and Nicobar Islands.

(9) Technical co-operation by visit of experts to India and sending Indian students to Australia.

Canadian Assistance—Record of capital allocations by years.

		$	$
1951-52	Wheat	10,000,000	
	Bombay State ($ 4,500,000)	4,352,775	
	Locust control (from Bombay State)	135,685	
	Mayurakshi	500,000	14,988,460
1952-53	Wheat	5,000,000	
	Locomotive boilers	1,815,522	
	Mayurakshi	2,021,075	8,836,597
1953-54	Locomotives	11,000,970	
	Commodities	5,000,000	
	Umtru	1,201,956	17,202,926

1954-55	Locomotives	10,470,000	
	Generating sets	3,003,000	
	Biological station	38,355	13,511,355
1955-56	Kundah	13,000,000	
	Pest control (aircraft)	160,000	
	Magnetometer survey	257,060	13,417,060
1956-57	Reactor	5,000,000	
	Kundah	7,000,000	
	Films and film strip	275	12,000,275
1957-58	Reactor	2,000,000	
	Kundah	5,000,000	
	Railway sleepers	3,000,000	
	Non-ferrous metals	10,815,000	
	Cobalt therapy units	120,000	
	Audio-visual	65,000	21,000,000
			100,956,673
1957-58	Wheat—1st grant	$ 7,000,000	
	2nd grant	8,000,000	

New Zealand Aid—The actual net expenditure of technical assistance given by New Zealand to India upto December 31, 1957, totalled £ 81,000.

New Zealand contributions of capital assistance to India up to December 31, 1957, were as follows :

	Allocated £	Transferred £
All India Medical Institute	1,000,000	1,000,000
Delhi Milk Scheme	800,000	400,000
Bombay milk supply	..	74,848
Kaira Co-operative Dairy	150,000	
Aarey Milk Colony Hostel	85,000	85,000
Dairy Research Institute, Karnal	..	30,680
Factory, Anand	..	23,622
Haringhata Farm, Calcutta	4,200	4,200
Artificial insemination equipment	14,000	14,000
Seed dressing equipment	6,000	3,361

Major capital commitment of New Zealand to India now is the Delhi Milk Scheme, the final total cost of which may be £ 3,500,000. New Zealand has already transferred £ 800,000 and has pledged further contributions from its Colombo Plan budget.

3. UNITED STATES AID

Since August 15, 1947

(A) *United States Government Aid* :	$ Millions
(1) Technical Assistance and Economic Aid Programs through June 30, 1958 ..	408.4
(2) Agricultural Commodities Agreement, August 1956	288.0

(3)	Wheat Loan of 1951 ..	190.0
(4)	Ex-IM Bank Loan to India Signed May 1958 ..	150.0
(5)	Agricultural Commodities Distributed through Voluntary Agencies as of June 30,1958 ..	80.1
(6)	DLF Loan to India Signed June 23, 1958 ..	75.0
(7)	Agricultural Commodities Agreement, June 23,1958	49.3
(8)	United States Contribution for Development of the Orissa Iron Ore Project, June 1958 ..	20.0
(9)	Milo (grain) Assistance in 1950-51 ..	12.2
(10)	Flood Relief Aid	6.4
(11)	India Wheat Loan Educational Exchange Program	5.0
(12)	Fulbright and Smith-Mundt Grants ..	4.0
(13)	Ocean Freight Assistance to Voluntary Agencies	0.6
(14)	PL 480, September 1958 ..	238.0
(15)	Development Loan Fund September 1958 ..	100.0
	Sub-total ..	1627.0

(Of which loans are $ 848.3 million and grants $ 440.7 million)

(B) *Assistance from Private United States Organizations* :

(16)	Ford Foundation Grants	26.9
(17)	Rockefeller Grants	6.0

4. RUMANIAN AID

Rumanian Government has agreed to provide a long term credit of Rs. 52,380,900 (£ 3,929,500) representing the total estimated value to the goods to be delivered and technical and other services to be rendered by Rumania for erection and construction of the publicly-owned refinery at Gauhati. The credit would bear interest at 2½ per cent per annum an d15 p.c. of the total would be repaid in six instalments —first one 30 days after the signing of the agreement and the last one 30 days after the refinery had gone into full operation. The balance of 85 per cent of the total credit would be repayable in 10 instalments, of which the first two would be due on December 31, 1961 and the 10th on December 31, 1965. The Rumanian Government would buy Indian goods as far as possible against the credit. The agreement in question was signed on October 20, 1958.

5. THE FORD FOUNDATION'S AID TO INDIA

The Ford Foundation's work in India began in the early autumn of 1951.

In the following nearly seven years, the Ford Foundation has concentrated largely on assisting the Government with financial aid in a broad range of programmes, nearly all of which are part of, or closely related to, India's First and Second Five Year Plans for development. In general, these Government programmes fall into five main groups ; rural development, with special emphasis on training men and women for village work ; development of business and industry ; advancement of education ; strengthening of public administration, and cultural interchange.

All Government programmes receiving Foundation assistance are planned, directed and administered by the Government of India, through the Planning Commission and other appropriate Ministries. The Foundation's role is to discuss and formulate with the appropriate Government agencies, individual programmes which are consistent with Foundation policies and objectives and suitable for Foundation support.

In general, the Foundation makes funds available over a period of 3 years, paying all costs the first year, half the second year, and one third the third year. The Indian Central and State Governments make up the balance, and bear the whole costs of the project after Foundation assistance ends.

A few special projects involving selected private groups or agencies, not the Indian Government, have been granted assistance. These projects fall into the five main fields outlined above—rural development, education, etc. As with the Government projects, all these private projects are directed and administered by the grantee, not the Foundation.

Summary of Indian Programmes receiving Ford Foundation Support

Rural Development

1. *Fifteen Pilot Extension Projects 1952*—Amount of Grant—$ 873,876.
2. *43 Training Centres for Village Extension Workers, 1952*—Amount of Grant—$ 1,873,485.
3. *Three Rural Public Health Training Centres, 1953*—Amount of Grant—$ 353,105.
4. *Public Health Education and Environmental Sanitation, 1955, 1957*—Amount of Grant—$ 553,000.
5. *Five Social Education Training Centres, 1952*—Amount of Grant—$ 375,363.
6. *25 Centres for Training Women for Village Extension Work, 1954*—Amount of Grant—$ 618,000.
7. *20 Centres for Training Village Artisans, 1954*—Amount of Grant—$ 407,575.
8. *Training of Project Executives and Officers, 1953*—Amount of Grant—$ 241,895.
9. *In-service Training Programme for Rural Development, 1953*—Amount of Grant—$ 545,850.
10. *Organization and Leadership of Village Youth Activities, 1955*—(a) Amount of Grant—$ 189,500. (b) *1957*—Amount of Grant—$ 148,500.
11. *Production of Four Films on Village Development, 1953, 1954, 1955*—Amount of Grant (Two films only ; others paid out of other extension training grants)—$ 122,000.
12. *Organizing of Extension Departments in Five Agricultural Colleges, 1953*—Amount of Grant—$ 420,000.
13. *Allahabad Agricultural Institute, 1951*—Amount of Grant—$ 940,000.

14. *Agricultural Information Workshop, 1952*—Amount of Grant—$ 1,792.

15. *Publication of Journal "Dharti-ke-Lal" (Sons of the Soil), 1953*—Amount of Grant—$ 23,913.

16. *Study Tour to the U.S. and Japan of 24 Indian Extension Directors, 1952*—Amount of Grant—$ 117,430.

17. *Tenth International Conference of Agricultural Economists, 1958*—Amount of Grant—$ 40,000.

18. *International Farm Youth Exchange, 1953, 1954, 1955, 1956, 1957, 1958*—Amount of Grant—$ 484,057.

19. *Evaluation of Rural Development Programme, 1952, 1953*—Amount of Grant—$ 461,500.

20. *Strenghening the Role of Village Teachers in Rural Development Areas, 1956*—Amount of Grant—$ 800,000

21. *Strengthening of Agricultural Extension and Information Services, 1957*—Amount of Grant—$ 783 000.

22. *Research and Writing on Village Life 1957*—Amount of Grant—$ 14,000

23. *Experimental Programme in Rural Health Services 1957*—Amount of Grant—$ 205,500.

(*Total for Rural Development*—$ 10,543,341).

Industrial and Business Development

1. *International Planning and Study Team on Small Industries Development, 1953*—Amount of Grant—$ 76,178

2. *Small Industries Development, 1955, 1957*—Amount of Grant—$ 3,683,000.

3. *Extension Services for Small Industries Service Institutes and Training Centre for Shoe Industry, 1956*—Amount of Grant—$ 465,000

4. *Rural and Urban Market Survey, 1953*—Amount of Grant—$ 15,000

5. *Studies on Foreign Investment Opportunities, 1955-57*—Amount of Grant—$ 68,200.

6 *Training and Research for Establishment of a Manpower Directorate, 1956*—Amount of Grant—$ 34,000.

7. *Books and Films on Indian Textile Design*—Amount of Grant—$ 2,255

8. *National Council of Applied Economic Research, 1956*—Amount of Grant—$ 500,000

9. *Training of Indian Engineers in U S. Steel Industry, 1957*—Amount of Grant—$1,755,000.

10. *International Team and Seminar on Labour Leader Education, 1957*—Amount of Grant—$ 32,800.

11. *Industrial Design Exhibition, 1957*—Amount of Grant—$ 46,000.

12. *Advanced Management Training Programme in the Philippines,1957, 1958*—Amount of Grant—$ 15,667.

13. *Management Accounting Study Tour, 1957*—Amount of Grant—$ 8,000.

14. *Advisory Team on Handicrafts, 1957*—Amount of Grant—$ 70,000.

(*Total for Industrial and Business Development*—$ 6,770,800).

EDUCATION

1. *Secondary Education Study Team, 1953*—Amount of Grant—$ 102,101.

2. *20 Seminars for Secondary School Headmasters,1954-56*—Amount of Grant—$ 146,800.

3. *Study Tour of Indian Rural Educators, 1954*—Amount of Grant—$ 26,000.

4. *International Study Team on Indian Rural Higher Education, 1954-55*—Amount of Grant—$ 22,525.

5. *Four Workshops in Writing for New Literates*—Amount of Grant, 1953-54—$ 12,630.

6. *All-India Council for Secondary Education, 1955, 1957*—Amount of Grant—$ 643,000.

7. *Extension Services in 54 Secondary Teacher Training Colleges, 1955*—Amount of Grant—$857,000.

8. *Education for Rural Areas 1955*—Amount of Grant—$ 1,745,00.

9. *Student Apprenticeships in Village Development, 1956*—Amount of Grant—$313,200.

10. *Establishment of a Chair of American Civilization, and Scholarships, 1955, 1958*—Amount of Grant—$219,000.

11. *Teaching and Research in Monetary and International Economics, 1957, 1958*—Amount of Grant—$ 299,500.

12. *Economic and Social Science Research, 1955*—Amount of Grant—

Bombay University	$ 73,000
Delhi University	$ 122,464
Gokhale Institute	$ 84,300
Punjab University	$ 52,300
Madras University	$ 52,200
Utkal University	$ 106,300
	$ 490,564

13. *Seminars on American Civilization, 1953-1961*—Amount of Grant—$20,200.

14. *Southern Languages Book Trust, 1955*—Amount of Grant—$400,000.

15. *Experimental Syllabi for Interdisciplinary Courses in Indian Universities, 1956*—Amount of Grant—$39,000.

16. *Study Camps and Special Seminars for strengthening Secondary Education, 1956*—Amount of Grant—$63,000.

17. *Strengthing Teaching of Science in Indian Secondary Schools, 1956*—Amount of Grant—$200,000.

18. *English Language Teaching Institute, 1957*—Amount of Grant—$685,000.

19. *Social Sciences in Health Education, 1957*—Amount of Grant—$291,000.

20. *Literacy Education, 1957*—Amount of Grant—$69,000.

21. *Research and Training in Social and Economic Growth, 1957*—Amount of Grant—Gokhale Institute .. .. $ 500,000
Delhi School of Economics .. $ 300,000
Massachusetts Institute of Technology $ 300,000

22. *Lodhipur Institute, Shahjahanpur, U.P., 1958*—Amount of Grant—$80,000.

23. *Preceptional and Tutorial Studies, 1958*—Amount of Grant—$426,000.

24. *Indian Statistical Institute, 1958*—Amount of Grant—$72,300.

25. *Post-Graduate Studies in Economics, Calcutta University, 1958*—Amount of Grant—$53,000.

(*Total for Education*—$ 8,367,804).

Public Administration

To strengthen its administrative services, the Government of India established in 1954 an Institute of Public Administration. Ford Foundation has made available to the Government Funds towards financing the Institute's programme. Amount of Grant—$350,000.

(*Total for Public Administration* :—$ 350,000).

Other Projects

1. *Community Development for Urban Areas, 1956*—Amount of Grant—$ 25,000.

2. *Urban Planning Team for Delhi Area, 1957*—Amount of Grant—$235,200.

3. *Gandhi Memorial Centre*, Harijan Colony, Delhi, 1952-55—Amount of Grant—$ 98,100.

4. *Delhi Orientation and Training Centre for Foreign Technicians, 1954-60*—Amount of Grant—$184,177.

5. *Chair in International Law, 1597-58*—Amount of Grant—$189,500.

6. *Research and Training on Indian Legal Problems*—Amount of Grant—Indian Law Institute .. $175,000
Institute of International Education .. $ 60,000

7. *Summer Workshop on Indian Legal Problems at Stanford University, 1957*—Amount of Grant .. $ 25,000

8. *Cultural Interchange : several projects, 1953-55*—Amount of Grant—$226,108.

(*Total for other projects*—$ 1,218,085).

GRANT SUMMARY

(1952-1958)

Rural Development	..	$ 10,593,341
Industrial and Bustees Development	..	$ 6,770,600
Education	..	$ 8,367,804
Public Administration	..	$ 350,000
Other Projects	..	$ 1,218,085
Grand Total	..	$ 27,299,830

6. THE ROCKEFELLER FOUNDATION 1920-1957

The work of the Rockefeller Foundation in India began in Madras Presidency in 1920 with hookworm studies and control. Since that date, its personnel has continuously developed health and medical programme in co-operation with Central and State Governments. Early emphasis was given to public health services, field services and training of personnel. Specific projects have been assisted from time to time for the study and control of hookworm and malaria, the development of rural health centres, rural sanitation and nursing education, nutrition and public health laboratory services ; and in recent years, support has been given to research in virus diseases, medical education and research and population studies.

To promote public health training, the Rockefeller Foundation contributed towards the building and equipment of All India Institute of Public Health and Hygiene in Calcutta, which serves both as a training and research centre on a nation-wide basis. In all its cooperation projects, the preparation of trained personnel received special attention. Foreign fellowship grants assisted many key medical and public health officers in India.

At present, the Rockefeller Foundation is co-operating with the Indian Council of Medical Research which has established a Virus Research Centre in Poona, the Foundation contributing equipment, supervisory staff and some funds. The Centre is conducting its field investigations, collections and virological study of human disease. Besides, it is continuing its work on the enteric viruses as a possible cause of Jamshedpur Fever and on the encephalitis in children which occured in epidemic form in 1956.

In an effort to improve and expand medical education greater emphasis is placed on the training of more and better teachers in medicine through local fellowships, foreign fellowships, travel grants and grants-in-aid. The Indian Council of Medical Research/Rockefeller Foundation local fellowship programme shows good progress.

The subject of population growth and control continued. A new study under the auspices of the All India Institute of Hygiene and Public Health, Calcutta was developed and finances provided by the Population Council of New York. The field testing of simple methods of family limitation, education of the public, implementation by a minimum of technical or professional personnel at village level will be conducted. The office of the Foundation in India is—The Rockefeller Foundation of New York, Indian Red Cross Building, New Delhi 2, India.

7. NORWEGIAN AID

A tripartite project was started in 1953 on the basis of an agreement between United Nations, the Government of India and the Government of Norway, in October 1952, Neendakara village in Kerala, 10 miles from Quilon, was selected for the location for Fisheries-cum-Community Development Project. The scope of the project originally envisaged by the Norwegian Foundation in 1952 has sur-passed expectations. The project is expected to be continued for two or three years more. In the form of equipment and experts, Norwegian assistance has amounted to about Rs. 177 lakhs since the inception of the project, while the internal rupee expenditure is being shared equally by the Governments of India and Kerala. Norwegian Government has now decided to appoint one of its senior officials a Director of the Project.

Introduction of mechanised fishing off the Kerala coast, training of local fishermen to man these boats and setting up of an ice and cold storage plant—these are some of the major achievements of the project. Fishing boats fitted with motors are now employed by the fisherman for the first time. The Indo-Norwegian experts have trained 140 fishermen in improved methods of fishing. Health services including a hospital and dispensary have been established. From a nearby lake fresh water is supplied to an area comprising about 100,000 inhabitants.

8. JAPANESE LOAN

Japan has given a loan of 18 billion yen (about $ 50 million in February 1958, and has offered a credit of 10 million in 1958.

9. RUSSIAN LOAN

1. In February 1955 an agreement on construction by the Soviet Union in India of an iron and steel works with an annual production capacity of 1,300,000 tons of steel was signed between the two countries. For the construction of the works, the U.S.S.R. has granted India a credit to 630 million rupees at 2.5 per cent interest to be paid off in Indian rupees within 12 years. The Soviet Union will have no share in the capital invested in the works and will not perticipate in its management.

2. An agreement was reached between U.S.S.R. and India on granting the latter another Soviet credit of 600,000,000 rupees which India earmarked for use for the development of the coal, power and heavy engineering industries.

3. The Soviet Union has allocated 10,000,000 rubles as part of its contribution to the UNESCO Technical Assistance Fund for starting Bombay Technological Institute.

4. In 1957 an agreement was signed between the Soviet Union and India under which the Soviet side undertook to help build a number of major industrial projects, including works to manufacture heavy machines, mining equipment, optical glass and powerful thermal stations in Neiveli and coal producing and processing industries in the Kobra area.

9. ASSISTANCE FROM U. K.

Colombo Plan—Upto June 1958, the United Kingdom Government had supplied or offered to India equipment costing about £ 233,000 (Rs. 30 lakhs). In addition, it had provided 106 experts for services in India and training in the U.K. for 615 Indians.

Pensions Repayment—In March 1958, the United Kingdom Government paid to the Government of India £ 12 million (Rs. 16 crores) in anticipation of sums due to India in later years under Sterling Pension arrangements.

Financial Assistance—Following a meeting at Washington in August, 1958, called by the World Bank to discuss aid for India, the U. K. Government has agreed to give India a credit of £ 38.5 million (Rs. 52 crores). This is made up of £ 10 million in the form of a further advance payment of sums due to India under sterling Pension arrangement and £28½ million in the form of credit available for meeting payments due to U. K. suppliers.

Technical Education—In December 1958, the United Kingdom Government announced that in conjunction with U. K. industry, it would make available to the Government of India grant of £ 500,000 (Rs. 65 lakhs) towards the establishment of a new engineering college in Delhi.

Steel Plant—For one million ton steel plant which British firms are building at Durgapur in West Bengal, the United Kingdom made available £ 26½ million (Rs. 35.33 crores) in credit. Over the next three years 300 Indian technicians who will operate Durgapur will be trained in steel plants in Britain under the Colombo Plan at the expense of the British Government.

Industrial Collaboration—British Industry is collaborating in the industrial development of India, both in the public and private sectors, through large scale investment, manufacture in India by nearly 150 Indian firms under licensing and other arrangements of British products and industrial training in the United Kingdom of Indian technicians at the expense of British Industry.

INDIA'S ASSISTANCE TO OTHER COUNTRIES

Loan to Burma—India had advanced to Burma a loan of Rs. 15 crores, repayable in 24 equal half-yearly instalments starting from April 1, 1960.

Loan to Indonesia—India had given loan of Rs. 5 lakhs to Indonesia, the terms of payment of which not yet settled.

Loan to Nepal—The Government of India had loaned 3,100 tons of rice to Nepal to be repaid in kind. She has also given Nepal Rs. 10 crores for a period of five years ending March 1961 in the shape of cash grants as well as contribution towards the cost of development schemes.

Aid to Sikkim—India was giving aid of Rs. 307 lakhs to cover the entire expenditure of Sikkim's Seven Year's Development Plan which commenced in 1956. A loan of Rs. 22 lakhs for the construction of an aerial ropeway, payable in 15 equal instalments had been given to the State. Interest would be charged at 4 p.c. per annum.

SCHEDULED CASTES & TRIBES IN INDIA

Scheduled Castes, Tribes and Backward Classes—There are certain classes of people among the population of India who are known as Scheduled Castes, Scheduled Tribes and Backward Classes. These classes include 779 Scheduled Castes, 245 Scheduled Tribes and 198 nomadic tribes, besides a number of unspecified groups. The tribals of India or aboriginals number about 22 millions forming 6.25 per cent of the total population. The Scheduled Tribes live in remote forest regions, chiefly in Bombay, Madhya Pradesh, Bihar, Orissa, West Bengal and Assam. These tribes are found in different levels of development—cultural or otherwise.

Special Safeguards—The Government of India have provided special safeguards for these Castes, Tribes and Backward Classes. These safeguards are listed below—

(1) *Indian Constitution*—Under Articles 15, 16 and 17 of the Indian Constitution, the State will not discriminate between any citizens on ground of religion race, caste, sex, place of birth. Under Article 19, the right to freedom is circumscribed by authorising the State to place reasonable restrictions for the protection of the interests of Scheduled Tribes. Under Article 46, the State should promote the educational, economic, and political interests of the weaker section of the people and in particular the Scheduled Castes and Scheduled Tribes and protect them from social injustice and all forms of exploitation. Article 25 empowers the State to throw open Hindu religious institutions of a public character. Under Article 17, untouchability is abolished and its practice in any form forbidden. Article 29 provides that no citizen can be denied admission into any educational institution maintained by the State or aided by it on grounds of religion, race, caste or language. Under Article 164 the States of Bihar, Madhya Pradesh and Orissa should have a Minister in charge of Tribal Welfare, who may, in addition, be in charge of the welfare of Scheduled Castes and Tribes or any other work of allied nature. The VIth and VIIth Schedules of the Constitution also provide for the administration and control of Scheduled areas and Scheduled Tribes and of Tribal areas of Assam by providing Tribal Advisory Council for Tribal areas.

Under Article 275 grants-in-aid are to be paid out of the Consolidated Fund of India for the promotion of the welfare of Scheduled Tribes and Scheduled areas.

Under Articles 330, 332 and 334, special representations in the Parliament and State Legislatures have been accorded to the Scheduled Castes and Scheduled Tribes for 10 years.

(2) *Special Laws*—The Untouchability (Offences) Act of 1955 has been passed which provides penalties for preventing a person on the ground of untouchability, from entering a place of public worship,

offering prayers therein, or taking waters from a sacred tank, well or spring. Denying access to any shop, public restaurant, public hospital or educational institution, hotel or any place of public entertainment, use of any road, river, well, tank, water tap, bathing-ghat, cremation ground, Dharamsala etc have been penalised. The Act also lays down penalties for refusing to sell goods or render services to a Harijan. There are also many legislative measures passed by the several States for removing social disabilities among the Hindus, such as Bihar Harijan (Removal of Civil Disabilities) Act 1949; Bombay Harijan (Removal of Civil Disabilities Act) 1947 etc. etc.

(3) *Administration of Scheduled and Tribal Areas*—Tribal Advisory Councils have been set up in Bihar, Madhya Pradesh, Madras, Punjab, Rajasthan, Bombay, Andhra Pradesh, West Bengal and Orissa. These Councils advise the Governor on such matters, concerning the welfare of the Scheduled Tribes and the development of the Scheduled Areas as may be referred to them.

Part X of the Constitution read with the 5th and 6th Schedules provides for the administration and control of the Scheduled Areas and Scheduled Tribes in States other than Assam and for the administration of Tribal areas of Assam, one Regional Council and 5 District Councils have been set up in the districts of the United Khasi-Jainta Hills, Garo Hills, Mizo Hills, North Cachar Hills and Mikir Hills. The Councils possess wide legislative and rule-making powers and also certain financial and taxation powers.

(4) *Welfare and other Agencies*—In addition to above, under proviso to Article 164 (1) of the Constitution, *Welfare Departments* have been set up in Bihar, Madhya Pradesh, Orissa, Andhra Pradesh Assam, Bombay, Kerala, Madras, Mysore, Punjab, Rajasthan, Uttar Pradesh, West Bengal, Himachal Pradesh, Manipur and Tripura. *A Special Officer* has been appointed by the President under Article 338 of the Indian Constitution to investigate all matters relating to the safeguards for the scheduled castes and scheduled tribes and to submit report to the President on th working of these safeguards.

Facilities in the Government Services—The Government of India decided on January 26, 1950 that 12½ per cent of the vacancies for which recruitment is made by the open competition on all-India basis and 16⅔ per cent of the vacancies to which recruitment is made otherwise, should be reserved for the Scheduled Castes. As for Scheduled Tribes, vacancies are to be reserved at a uniform rate of 5 per cent in both open competition and otherwise. Where the recruitment is made on regional basis, the reservation should be in proportion to the population of the Scheduled Castes and Scheduled Tribes in the region, subject to the minimum reservation of 5 per cent for Scheduled Tribes. Minimum age limit has been raised by five years for Scheduled Tribe or Scheduled Caste candidates and examination fees have been reduced by three-fourths. The principle of reservation will also apply in cases where promotion is subject to the passing of a qualifying departmental examination.

Advisory Boards—The Central Advisory Boards have been formed by the Government of India to associate members of the Parliament and public workers with matters pertaining to the development of tribal areas and welfare of the Scheduled Tribes and Scheduled Castes. One is the *Tribal Welfare Board* and other *Harijan Welfare Board.*

Educational Concessions and Scholarships—Special educational concessions are given by the Government to the students of the Scheduled Castes and Tribes, such as, free tuition, stipends, scholarships, provision of books etc. The Government of India have instituted special scholarships for these classes of students including overseas scholarships.

Tribal Research Institutes—Tribal research institutes have been started in Bihar, Madhya Pradesh, Orissa, Rajasthan and West Bengal. The Departments of Anthropoogy is also carrying out extensive research on the social and cultural life of the Tribes.

Five-Year Plans—During the First Plan period (1951-56), India spent about Rs. 200 millions on welfare schemes for the Scheduled Tribes and the development of Scheduled and Tribal Areas. The provision is nearly three times as much in the Second Plan.

Agriculture and Craft—Agriculture and forests are the principal mainstay of the tribal people. Almost entire population who live in the interior hill districts of various States, practise shifting cultivation. The need for weaning away the tribals from primitive forms of agriculture and setting them permanently on land are engaging the urgent attention of the Central and State Governments. The scheme for controlling the practice of shifting cultivation has been started in Assam, Andhra, Bihar, Madhaya Pradesh, Manipur and Tripura. The other works undertaken are—(1) establishment of demonstration farms (2) colonisation schemes (3) resettlement of tribal families (4) reclamation of land (5) distribution of seeds, fertilizers and bulls (6) producing wells and tanks (7) construction of bridle-paths and approach roads in inaccessible areas and hilly regions.

REPRESENTATIONS IN THE PARLIAMENT AND THE STATE ASSEMBLIES

Parliament	*Scheduled castes*	*Scheduled tribes*
Andhra Pradesh	9	2
Assam	1	2*
Bihar	7	5
Bombay	7	5
Kerala	2	0
M. P.	5	7
Madras	7	..
Mysore	3	..
Orissa	4	4
Punjab	5	..
Rajasthan	3	2
Uttar Pradesh	18	..
West Bengal	6	2
Jammu & Kashmir	..	..
Delhi	1	..
Himachal Pradesh	1	...
Manipur	—	1
Tripura	—	1
	76	31

Legislative Assembly	*Scheduled castes*	*Scheduled tribes*
Andhra Pradesh	43	11
Assam	5	26
Bihar	40	32
Bombay	43	31
Kerala	11	1
M. P.	43	54
Madras	37	1
Mysore	28	1
Orissa	25	29
Punjab	33	..
Rajasthan	28	20
U. P.	89	..
W. Bengal	45	15
	470	221

SCHEDULED CASTES AND SCHEDULED TRIBES, 1951

	Scheduled Castes	*Scheduled Tribes*
India	5,51,70,886	2,25,11,854
Andhra Pradesh	44,15,995	11,49,919
Assam	4,24,044	17,61,434
Bihar	49,13,990	38,80,097
Bombay	52,02,077	37,43,408
Kerala	12,07,294	1,34,757
M. P.	39,12,205	48,44,128
Madras	53,81,836	1,36,376
Mysore	25,83,142	80,402
Orissa	26,29,250	30,09,580
Punjab	34,90,983	2,661
Rajasthan	25,02,202	17,74,278
Uttar Pradesh	1,31,00,398	—
West Bengal	47,43,713	15,66,868
Andaman & Nicobar Ils.	—	—
Delhi	2,68,530	--
Himachal Pradesh	3,19,972	27,928
Lacadive, Minicoy & Amindivi Ils	—	13,486
Manipur	28,647	1,94,239
Tripura	46,608	1,92,298

PROGRESS OF SCIENCE IN 1958

Conquest of South Pole

Sir Edmund Hillary, the co-conquerer of Mount Everest reached South Pole on January 3, 1958. Sir Edmund Hillary and his four collegues from New Zealand are the third group of explorers in history to reach the Pole over land and the first in 47 years. Captain R. Amundson of Norway and Captain Robert F. Scott of England were the earlier explorers of the Antarctic. They had reached there in 1911-12. Another British party led by Dr. Vivian Fuchs reached South Pole on the 20th January, 1958.

Atom-Powered Submarine

A remarkable voyage was undertaken by the U. S. atom-powered submarine *Nautilus* which completed a submerged passage beneath the North Pole and under the Polar ice, pioneering a new sea lane between the Eatsern and Western hemispheres. The distance from London to Tokyo is now about 11,200 miles but by the route pioneered by *Nautilus* it would be only about 6,300 miles. *Nautilus* travelled 1,830 miles under the ice in 96 hours from Point Barrow to the Atlantic Oceon between Greenland and Spitsbergen.

Fall-out Menace : U. N. Report.

The long-awaited report of the U. N. Scientific Committee on the effects of Atomic Radiation was made public in 1958, after two and half years of study by a group of scientists from different countries.

The report revealed general unanimity among the scientists on the known scientific facts. The committee agreed unanimously that fall-out from nuclear weapons tests is a hazard to mankind. The committee unequivocally depicted the dangers of radioactive fall-out from nuclear weapons tests to present and future generations. "Even the smallest amounts of radiations" it states "are liable to cause deleterious genetic and, perhaps also, somatic effects." Somatic effects are injurious to the body as a whole, which may lead in the course of time to leukemia, cancer and shortening of life. Such damage is not transmitted by the individual to his offspring.

On the other hand, genetic damage is damage inflicted by exposure to radiation of the reproductive organs or gonads—the ovaries in the female and testes in the male. Exposure of the gonads to radiation, even in minute doses, is known to produce mutations or changes in genes. The vast majority of such mutations are deletarious.

An increased mutation rate, would probably lower the average intelligence quotient and reduce the life span of members of the human race. Once the genes have been altered there is no changing them back.

Although attempts have been made and are still being made, to develop 'clean' bomb, producing a minimum of fall-out, it is generally agreed that all above-ground nuclear explosions produce some amount of radio-active debris. This is because all hydrogen bombs must incorporate a fission bomb of either uranium 235 or plutonium as a trigger to set off the fusion. Of these fission products, the most dangerous are strontium 90 which is deposited in bones and may lead to bone cancer, and ceasium which gives off dangerous gamma radiations that may produce both somatic and genetic effects.

International Conference on the Principal Uses of Atomic Energy.

The second U. N. International Conference was held in Geneva, Switzerland in September 1958. The first meeting was held in Geneva in 1955. The Conference made clear that world prosperity from atomic power is not just around the corner. The efforts to get usable power from the atom centre on the two basic nuclear reactions—fission and fusion. This is the situation on each :

Fission, the process that takes place in the A-bomb, is the splitting of heavy atoms—uranium or plutonium. The fission reaction produces heat, and when kept under control in a reactor it can heat water into steam, which in turn drives an electric generator.

The world now has twelve reactors—three in Britain, eight in the United States, one in Rusia. But they produces only 200,000 kilowatts (enough for a city of 200,000) and one of them can compete economically with conventional sources of power. The western scientists predict competitive power from fission in five years in areas where the cost of conventional power is high, such as in Western Europe, which imports fuel, and in ten years in low-cost areas such as the U. S.

Fusion, the process that takes place in the H-bomb, is the combining of light atoms, such as deuterium, a variant of hydrogen. The problem is that so far fusion cannot produced except in an uncontrolled explosion. It requires temperatures of around 100 million degress Centrigrade, and the reaction would be stopped if the particles touched the colder walls of a container. British and U. S. scientists have tried to use the "pinch effect"—an electrical current creating a magnetic field that briefly pinches deuterium gas away from the walls.

In September 1958, the U. S. and Britain, followed by Russia, announced declassification of all fusion research. It turned out that all three are working on the pinch and that none has yet suceeded. Dr. Edward Teller of the U. S. said economic use of fusion "may not be possible before the end of the Twentieth Centuary." The British, backing away from earlier optimism, said it would be ten years before it is known whether fusion can be used at all.

Toward the Moon & the Sun

This is the chronology for race into space since October 4, 1957 to up-to-date—

Oct. 4, 1951. Russians launch Sputnik I ; 184 pounds ; maximum altitude 560 miles. Disintegrated after three months.

Nov. 3, 1957. Russians launch Sputnik II ; 1,120 pounds, with a dog aboard ; maximum altitude 1,056 miles. Disintegrated after four and one-half months.

Jan. 31, 1958. U. S. launches Explorer I; 30.8 pounds; maximum altitude 1,587 miles. Expected to orbit for three to five years.

March 17, 1958. U.S. launches Vanguard II; 3.25 pounds; maximum altitude 2,466 miles. Expected to orbit at least 200 years.

March 26, 1958. U.S. launches Explorer III; 31 pounds; maximum altitude 1,741 miles. Disintegrated after three months.

May 15, 1958. Russians launch Sputnik III; 2,925.53 pounds (including 2,129 pounds of instruments and a carrier of unspecified weight); maximum altitude 1,168 miles. Expected to disintegrate within Feb., 1959.

July 26, 1958. U. S. launches Explorer IV; 38.43 pounds (including 18.26 pounds of instruments); maximum altitude 1,380 miles. Expected to orbit for a few years.

Oct. 11, 1958. U.S. launches Pioneer 1 in an effort to hit or orbit the moon. Soared 71,300 miles, then fell back and disintegrated.

Nov. 8, 1958. U. S. launches Pioneer II in a second attempt to reach the moon. Crashed back after flight of 7,500 miles.

Dec. 6, 1958. U. S. launches Pioneer III aimed at passing the moon. Tumbled back and disintegrated after reaching height of 66,654 miles.

Dec. 18, 1958. U. S. launches Atlas I; weight 8,700 pounds (including 167 pounds of instruments); maximum altitude 928 miles. Expected to disintegrate in February, 1959.

Jan. 2, 1959. U.S.S.R. launches a cosmic rocket named 'Lunik' which passed the moon on Jan. 3, and is now circling the sun as the 10th planet. The last stage of the rocket weighs 3,245.2 pounds and contains 796.5 pounds of instruments.

Achievements of the International Geophysical Year

The International geophysical year or IGY began July 1, 1957 and ended officially on 30th December 1958. It marked the successful conclusion of man's most ambitious effort to gain better knowledge of the earth and its environment. The accumulation of IGY data in three World Data centres will continue for many months after the formal closing of IGY. But the following are some of the high lights of the tentative findings of IGY—

(1) The successful launching of artificial satellites has ushered in the Space Age and has brought closer to realization the era of interplanetary travel. The placing of instrumented satellites in orbit, will inevitably lead to greatly increased knowledge of the earth, the moon and the solar system.

(2) An intense band of radiation, increasing in intensity with altitude to a height as yet undetermined, was discovered to begin at a height of 250 miles. The mysterious radiation zone indicates that a vast region of space around the earth is populated with charged particles, probably replenished by solar plasmas (ionized gases).

(3) A vast, mineral-rich region has been discovered in the Pacific. Millions of square miles of the Southwest Pacific bear a bottom sludge laden with nodules of manganese and iron with up to 1 per cent of cobalt mixed with copper. The value of these minerals is

estimated at about $500,000 per square mile, and the economics of dredging upto the sludge "appear to be promising."

(4 New light has been shed upon weather and climate of the past. For example, it has been found that during the past fifty years or so the amount of precipitation in the Arctic has averaged twice that of the Antarctic. These data provide clues to the future of weather and climate.

(5) Recording of temperatures to a low of at least 124 degrees below zero Fahrenheit in the Antarctic suggests the possible role of this vast continent of cold in the formation of world weather.

(6) Three major counter-currents in the oceans have been found and measured. *One* in the Atlantic flows beneath and opposite to the Gulf Stream, traveling at the rate of eight miles per day some 9,000 feet beneath the surface. The *second*, at depths between 200 and 1,000 feet, flows against the surface equatorial current of the Pacific, transporting a billion cubic feet of water per second. The *third* lies beneath the surface 200 miles north of the Pacific equator, transporting 1.5 billion cubic feet per second. These findings hold great significance for the dynamics of weather and climate and even for the location and quantity of food stocks in the seas.

(7) Scientists were able to collect unprecedented data on the interrelationships of phenomena in the upper atmosphere and terrestrial events when the earth passed through a remarkably intense cloud of solar gases on Feb. 10-11, 1958, which produced the most spectacular and the best observed aurora in history. Other intense terrestrial distubances accompanied the auroral storm. Great electric currents flowed through the crust of the earth. There was a steady decline in the horizontal component of the earth's magnetic field, together with a sharp dip in the volume of the radio noise that reached the earth.

(8) During several voyages to Antarctica, supplemented by balloon studies and an aircraft flight around the equator, deviations were found in cosmic ray trajectories from those to be expected from the classical description of the earth's magnetic field in space, which should uniformly affect paths of charged particles. The equator for cosmic rays turns out to be skewed west-ward by as much as 45 degrees. This points to disturbance of the earth's magnetic field by other magnetic fields in space, probably associated with recurring clouds of solar particles.

(9) So much more ice has been found in Antarctica, to depths of 14,000 feet, that the amount of ice and snow in the world must be revised upward by about 40 per cent—from 3,240,000 cubic miles to some 4,500,000 cubic miles. The revised figure is critical for the study of the delicate balance of the heat and water regimen of the earth.

(10) The 6,000,000 square mile continent of Antarctica, instead of being a single land-mass, now appears to be a complex of islands and mountains hidden under the vast ice-mantle.

INTERNATIONAL AFFAIRS

1. CONFERENCE ON THE LAW OF THE SEA

The international conference on the law of the sea, convened by the United Nations drawn up by the International Law Commission, ended in Geneva on 28th April, 1958, after two months' work. The Final Act, was signed at a ceremony on 29th April. Seventeen countries signed the three conventions on the territorial seas and continuous zone, the high seas (including the position of land-locked countries) and the continental shelf, and 16 countries signed that on fishing and conservation of the resources of the high seas. An optional protocol providing for the compulsory jurisdiction of the International Court of Justice in disputes arising out of the conventions was signed by 13 countries. Among countries signing only the Final Act were the United Kingdom, the United States and the USSR. The documents remained open for signature until October 1958. To bring the conventions into force 22 ratifications or accessions are needed.

The High Seas: On the regime of the high seas, the conference adopted all 28 articles, and a number of draft resolutions, submitted by its second committee, and directed that the articles were to be combined in a convention, the preamble to which should include a clause to the effect that they were largely declaratory of existing international law, and another stating that they did not override specific conventions in force. Among the subjects covered by the articles are the freedom of the high seas ; the nationality of ships ; the immunity of warships and other government ships ; the safety of nagivation ; the right of hot pursuit, the slave trade, piracy, and submarine cables and pipelines. A resolution expressing apprehension over nuclear tests on the high seas and referring the question to the United Nations General Assembly was also adopted.

Continental Shelf: The conference also adopted six articles concerning the continental shelf, and decided to embody them in a separate convention. The coastal state will, in accordance with these articles, exercise sovereign rights over the continental shelf for the purpose of exploring it and exploiting its natural resources. The first of these articles defines the continental shelf as follows :—

"For the purpose of these articles the term continental shelf is used as referring (a) to the sea bed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of superjacent waters admits of the exploitation of the natural resources of the said area ; (b) to the sea bed and subsoil of similar submarine areas adjacent to the coasts of islands.

Fishing and the Conservation of the Living Resources of the Sea: The conference adopted all but one of the articles together with an additional article proposed by the drafting committee and several resolutions. The articles, combined into a Convention on Fishing and the Conservation of the Living Resources of the Sea, dealth with such matters as the right to fish on the high seas; the conservation of their living resources; and fisheries conducted by means of equipment embedded in the floor of the sea. They include a compulsory arbitration clause. A resolution concerning the special right of States of whose economy depended on fishing and calling for collaboration between States to secure just treatment of such cases, was also adopted.

The United Kingdom policy in the matter was stated as follows in the House of Commons on 28th April 1958: "No proposal before the Geneva Conference relating to the breadth of territorial waters and to exclusive fishing zones outside the territorial water has secured the necessary two-thirds majority. The position is therefore that the only generally recognised rule in international law is that the breadth of territorial waters is three miles and that all waters outside that limit are high seas. Claims to exclusive fishing outside the limits of territorial waters are not recognised by international law. In the absence of any international agreement on the subject to which they are a party, the British Government reserve all their rights to the freedom of the high seas."

Compromise Proposal: The United Kingdom delegation submitted in the conference on 2nd April, 1958, in view of the over whelming opposition to its views, the following proposal: "The limit of the breadth of the territorial sea shall not extend beyond six miles. Extension to this limit shall not however affect existing rights of passage for aircraft and vessels, including warships, outside three miles." This proposal would have given the coastal state control over fishing up to six miles from its shores, and no further, while retaining freedom of passage for vessels and aircraft of other states outside a three mile limit.

On 15th April the United States similarly departed from its traditional adherence to the three-mile rule, and proposed a six-mile territorial sea plus a six-mile fishing zone, in which, however, the rights of other countries already fishing there would be reserved. The next day Canada proposed in conjunction with India and Mexico, a territorial sea of six miles, or up to twelve miles for states which had claimed more than six miles prior to 24th February, and that in all cases exclusive fishing rights would be enjoyed by the coastal states up to twelve miles from the base line. On 18th April the delegation reverted to its original plan, but now with a six-mile in place of a three-mile territorial sea, plus a six mile fishing zone. India and Mexico reverted to their previous proposal that each state should fix its own territorial sea up to a limit of twelve miles. The United States put forward a new compromise proposal to fix the maximum breadth of territorial sea at six miles plus a further zone of exclusive rights up to a maximum of twelve miles, with the proviso that foreign fishing vessels might continue to fish in the outer six-mile zone if they had fished there regularly for the 1st five years.

In the final voting where no proposal received the necessary two-thirds majority, the United States compromise resolution received the greatest number of votes (45 to 33, 7 abstentions). Among other articles approved in plenary session relating to the regime of the territorial sea, which, together with an article on a contiguous zone, are to be combined in a separate convention, were those giving the coastal state sovereignty over its territorial sea and over the air space above it and sea bed and subsoil below it ; passage through international straits ; that fixing low-water mark as the base line from which the territorial sea is normally measured, and another concerning the base-line to be drawn in case of deeply idented coasts : this recognised the principle of straight lines drawn from point to point of the coast or its island fringe, but with strict reservations as to the definition of such coasts and islands and the method to be employed in drawing the base-lines. The maximum limit for the closing line for bays was fixed at 24 miles.

The article on the contiguous zone gives the coastal state the right to take measures necessarily to prevent and punish infringements of its customs, fiscal, immigration or sanitation arrangements in a zone extending not more than twelve miles from the base line from which the breadth of the territorial sea is measured.

II. NORTH ATLANTIC TREATY ORGANIZATION

The North Atlantic Council of Ministers held its annual spring meeting in Copenhagen from 5th to 7th May, 1958. There was an important development in the alliance in that it now had an increasing regard for the economic side having already progressed from the purely military to the political. The following communique was issued at the end of the meeting :

The foreign ministers of the 15 NATO countries have deepened and strengthened their mutual understanding and their unity of purpose. NATO, a defensive organisation, is now much more than merely a military alliance. It is becoming a true community of free nations. Within this community, to a degree unprecedent in history, countries are carrying out a policy of close co-operation in peace time without abandoning their independence. This development is one of the most important events in recent years.

Ministers recognised that political unity and the efficient organization of defence were not enough. Economic co-operation is also essential between the members of the alliance. Every effort should be made to ensure economic prosperity, notably by the expansion of international trade and by aid to under-developed countries. Consultations on methods and machinery for such co-operation will take place within the alliance.

During their consideration of the international situation, the ministers had a discussion on the question of a possible summit conference. The Council of Ministers believe that summit meetings are desirable if they offer prospects of reaching settlements on important questions. The Council considers that conferences at the summit are not the only way, or necessarily the best way of conducting negotiations or reducing international tensions. In any event, such conferences must be properly prepared and take place in a favourable atmosphere.

III. SUEZ COMPENSATION

A further step in the settlement of the compensation of the Suez stock-holders was announced by the International Bank for Reconstruction and Development on June 11, 1958. The Bank stated that agreement had been reached on the text of a final agreement, expected to be signed in mid-July. The International Bank has been providing good office in discussions on the settlement.

Subsequent to the signature of the heads of agreement in Rome on April 29, 1958, by representatives of the Government of the United Arab Republic and of the Suez shareholders, further discussion between the parties, with International Bank participation, had been held in Cairo and subsequently in Paris during the past several months. As a result of these discussions, agreement was reached on the text of a final agreement, providing for the implementation of the Rome heads of agreement. "Heads of agreement" is a term denoting a type of preliminary agreement on main aspects of a problem, with details remaining for further implementation.

A last step in the settlement of the compensation of the Suez share-holders was taken on July 13, 1958 when the final agreement was signed in Geneva at the United Nations European office. The Bank helped to negotiate the settlement, and acting as fiscal agent would collect the payments from the United Arab Republic. The heads of agreement—a preliminary agreement on main points, with details to be discussed later—were signed in Rome on April 29.

IV. INTERNATIONAL LABOUR CONFERENCE

A major achievement of the forty-second session of the International Labour Conference, held in July 1958, in Geneva, was the adoption of a convention calling upon member states to take steps to eliminate discrimination in employment and occupation. The convention, adopted by a vote of 189 in favour, 24 against and 13 abstentions, is binding upon its parties. The recommendation is an advisory measure, dealing with the formulation and application of anti-discrimination policy. Countries ratifying the convention will undertake to pursue policies "designed to promote, by methods appropriate to national conditions and practices, equality of opportunity and treatment in respect to employment and occupation with a view to eliminating any discrimination. They also undertake to apply the convention to non-metropolitan territories in accordance with the constitution of the International Labour Organization.

The convention defines discrimination as "any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation." It specifies, however, that preference based on the special requirements of a particular job does not constitute discrimination. In the course of the meetings, both the United States and the Soviet Union pledged their co-operation with a projected survey of the right to freedom of association in all ILO'S seventy-nine member countries.

V. THE MIDDLE EAST

Disorders in Lebanon : The assassination, on 8th May, 1958, of a newspaper editor who was an avowed opponent of the then Lebanese Govt., was made the occasion for inflammatory statements and called for strike action by opposition leaders in the Lebanon. Serious rioting broke out in Tripoli the following day, and later spread to other areas, including Beirut. United States Information Service libraries were sacked and burned in both Beirut and Tripoli. Later, the disturbances began to take on the character of an insurrection, with armed clashes between opponenets of the Government and the police and to some extent the army. The Iraq Petroleum Company's pipeline from Iraq to Tripoli was sabotaged near the Syrian border, though damage was small and was swiftly repaired.

On 14th May, one of the opposition leaders, Saeb Sallam declared that the present strike would continue until the President, whom he accused, together with the Foreign Minister relinguished the Presidency and his regime vanished. On 21st May, President Chamoun, who had been reported to be seeking a second term of office, told a press conference that he had no intention of resigning as the Opposition demanded. On 27th May, the Lebanese Prime Minister, Sami Solh, declared that his Government did not intend to submit a Bill to Parliament amending the constitution to enable the President to seek re-election.

Lebanese Government Reactions : On 13th May, the Lebanese Foreign Minister, Dr. Charles Malik in a statement to the Press said that the events in the Lebanon could only be understood and appraised against the background of vast outside interference in the internal affairs of Lebanon and that was going on for months and indeed for years. He mentioned the United Arab Republic (UAR) whose press had unleashed the strongest possible attacks and vilifications upon the Lebanon and its Government. The object of these, he asserted, was to "destroy the Lebanon as a free, independent and sovereign State and to bring about a radical modification in its fundamental political orientation." At his press conference on 21st May, President Chamoun reiterated the charge of large-scale interference by the UAR.

Subsequently, the Lebanon appealed to the Arab League and on 22nd May to the United Nations Security Council against the interference of the UAR. The Security Council met to consider the complaint on 27th May, 1958.

United States Military Assistance : On 17th May, the United States Department issued a statement on U.S. military assistance to the Lebanon. It said : "Some time ago the United States concluded an agreement with the Government of the Lebanon to furnish that Government with certain arms and equipment for use in defending its territorial integrity and the independence of the Lebanon. Recently, the Government of Lebanon asked the United States Government to expedite the implementation of agreed programmes and in some instances to augment these programmes. In making this request, to which the United States agreed, the Government of Lebanon indicated that the integrity of Lebanon was threatened by persons acting under alien influence." The US statement concluded by saying that this additional assistance had as its sole purpose "to augment the capacity of the Lebanese security forces to control and prevent these subversive efforts and to facilitate the restoration of peace and quiet."

The Political Situation : The former Lebanese administration headed by President Chamoun, with Sami Solh as Prime Minister had good relations with the West, and accepted the Eisenhower doctrine in the spring of 1957. It was supported by the Army, which was predominantly Christian, but was opposed by those extreme Moslem elements who favour Egyptian and Syrian policies. These were headed by Abdullah Yaffi and Saeb Sallam, leaders of the previous Government, which resigned in November 1956, on the issue of breaking diplomatic relations with the United Kingdom and France following their intervention in the Israeli-Egyptian hostilities. During general elections in June 1957, which were also marked by serious disorders, Abdullah Yaffi and Saeb Sallam were defeated and the present Government won a majority in the Chamber sufficient to enable the President to achieve a second term.

Security Council Action on Lebanon : The Security Council on June 11, 1958 decided to have an Observation Group to go to Lebanon immediately to ensure that there would be no illegal infiltration of the personnel or arms or other materials across the Lebanese borders, and authorised Secretary-General Dag Hammarskjold to take all necessary steps to implement the decision. Mr. Hammarskjold announced three days later that he had appointed Major-General Odd Bull of Norway as executive member of the Observation Group in charge of military observers. Also appointed in the Group were Mr. Galo Plaza of Equador and Mr. Rajeswar Dayal of India. The Secretary-General asked the Chief of Staff of United Nations Truce Supervision Organisation to make available on a temporary basis a number of officers for service under the immediate authority of the Observation Group.

The Secretary-General arrived in Beirut on June 19 to be present at the first meeting of the Observation Group, and to meet briefly with Lebanese President Camille Chamoun, and the Prime Minister Sami es-Solh. Three days later he arrived in Cairo for talks with President Gamal Abdel Nasser of the United Arab Republic and returned to Beirut on June 24. The decision of the Security Council to establish an Observation Group followed a complaint filed by the Government of Lebanon on May 22, 1958 which called on the Council to consider "a situation arising from the intervention of the United Arab Republic in the internal affairs of Lebanon." The letter declared that the intervention consisted, among other things, of infiltration of armed bands from Syria, the destruction of Lebanese life and property by such bands, the participation of United Arab Republic nationals in acts of terrorism and rebellion in Lebanon, the supplying of arms from Syria to persons and groups in Lebanon rebelling against established authorities, and the waging of a violent radio and press campaign in the United Arab Republic calling for strikes, demonstrations and the overthrow of the established authorities in Lebanon. The Security Council now began its discussions. The resolution calling for establishment of the Observation Group, put forward by Sweden, was adopted by a vote of 10 in favour to none against, with the Soviet Union abstaining. The latest report on the situation was that the UNO Observation Group had now decided to withdraw from that country in view of the easing of the tension.

Middle East Crisis: The Security Council, which had been called into emergency session on July 15, 1958 to consider further development in connection with Lebanon's complaint of intervention by the United Arab Republic in its internal affairs, adjourned on July 22 without setting a date for its next meeting. At the Council meeting of July 15 Ambassador Henry Cabot Lodge of the United States, informed it of United States Marine landings in Lebanon. The United States forces, the US representative declared, were not there to engage in hostilities of any kind, much less fight a war. He said that the troops were sent for the sole purpose of helping the Government of Lebanon at its request, in its efforts to stabilize the situation, until such time as the United Nations could take the steps necessary to protect the independence and political integrity of Lebanon. The United States forces, he added, would afford security to the several thousand Americans living in Lebanon. "That is the total scope and objective of the United States assistance," he declared.

Referring to the United Nations Observation Group in Lebanon, Mr. Lodge said that the Group had "thus far been able to achieve limited success." While supporting the US move in the Lebanon, the United Kingdom representative introduced a draft resolution requesting the Secretary-General to consult with Lebanon and other interested States in order to make necessary arrangements to protect the territorial integrity of Lebanon and to ensure against infiltration of arms or personnel across the border.

Introducing a Soviet draft resolution calling on the United States to recall its troops from Lebanon forthwith, A. Sobolev of the USSR, charged that United States actions were a gross violation of the Charter, and a threat to intrnational peace and security. Gunnar V. Jarring, of Sweden, in the course of the debate, declared that, in his Government's view, the arrival of United States troops in Lebanon had substantially alterted the situation and that the Observation Group had become superflous from a practical viewpoint and unsuitable from a political viewpoint. He presented a resolution calling for the withdrawal of the Group until further notice and pointing out that the United Nations was not authorised to intervene in the domestic affairs of a State.

On Friday July 18, the Council voted on the three resolutions presented by the United States, the Soviet Union and Sweden respectively. All three proposals were rejected. The civil war in Lebanon virtually came to an end with the landing of the U. S. marines in Beirut. A new president, Major-General Fuad Chehab was elected President in place of Mr. Chamoun on July 31, 1958 and this constituted a great blow to the American prestige in the Middle East.

Mr. Chamoun quited his post on September 23 when the new President took over. A token withdrawal of the U. S. marines from Lebanon had already taken place.

PROMINENT PEOPLE OF THE WORLD IN 1958

President Eisenhower
(U. S. A.)

Nikita Khrushev
(U. S. S. R.)

Premier Harold Macmillian
(Great Britain)

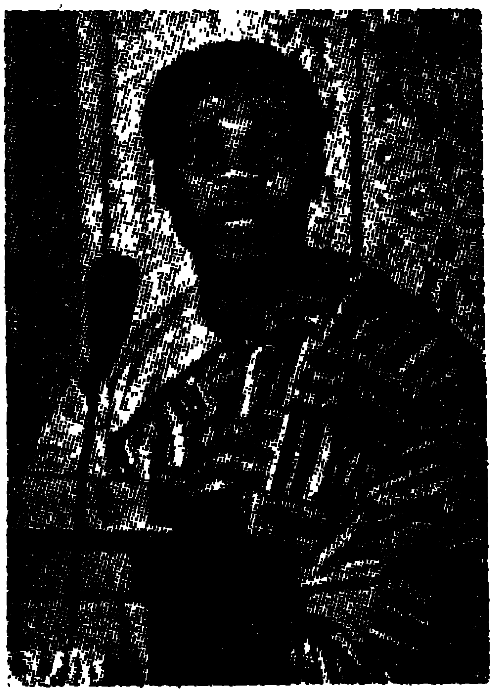
Premier Kishi
(Japan)

PROMINENT PEOPLE OF THE WORLD IN 1958

Premier El-Kassim
(Iraq)

Dictator Sarit
(Thailand)

Archibishop Makarois
(Cyprus)



Premier Nkrumah
(Ghana)

PROMINENT PEOPLE OF THE WORLD IN 1958

Moo-Tse-Tung
(China)

Marshal Tito
(Czechoslovakia)

Premier Grotewohl
(East Germany)

PROMINENT PEOPLE OF THE WORLD IN 1958

Premier De Gaulle
(France)

Rebel Chief Castro
(Cuba)

Boris Pasternak
(U. S. S. R.)

Revolution in Iraq : A major revolution took place in Iraq, a member of the Baghdad Pact. On July 14, 1958, a group of young officers of the Iraqi forces overthrew the regime of General Nuri-es-Said, a staunch supporter of the West. General Nuri, 70 years old, Iraq's strong man since he first became Premier in 1930, was killed by the rebels. King Faisal and his family were shot dead by the rebel forces. A new Government has been formed under General Abdul Karim Kaseem, as the Prime Minister and Iraq has been proclaimed as a republic. The new regime has not denounced the Baghdad Pact, nor has gone against the Western Powers.

Iraq is an independent State in Arabia. It was before the first world war, a Turkish province and became a state in 1919. The World War I brought the British on the scene. With the aid of the Arab nationalities, the British dislodged from power the Ottoman Turks who had misruled Iraq from 1534 to 1918. In spite of the fact that the British placed King Faisal I (son of Sherif Husain, ex-King of Arabia) on the throne of Iraq on August 23, 1921, they continued to wield the real power till 1932, when after a number of violent demonstrations and revolts, they pulled out of the country. Except during Premier Rashid Ali's brief pro-German regime in 1941, all the Governments of Iraq, which were often headed by the assassinated premier Nuri-es-Said, remained up to the last coup the strong supporters of the Western cause in West Asia. With the assassination of the 23 year old King Faisal II (grandson of King Faisal I), the pro-western monarchy of Iraq passes out of history and yields place to a republic.

The Middle East and the UNO : The two-week emergency special session of the General Assembly came to a quick end on August 21, 1958, with the unanimous adoption of a resolution calling on Secretary-General Dag Hammarskjold to make practical arrangements to uphold the purpose and principles of the United Nations Charter in Lebanon and Jordan and thereby facilitate the early withdrawal of the foreign troops from those two countries. Eighty of the eighty-one members voted for the resolution, with the Dominican Republic absent. The resolution, which was sponsored jointly by the ten Arab members—Iraq, Jordan, Lebanon, Libya, Morocco, Saudi Arabia, the Sudan, Tunisia, the United Arab Republic and Yemen—also welcome renewed assurances by the Arab countries that they would observe their Arab League obligations to respect each other's systems of government, and to abstain from any action calculated to change them, and called upon all United Nations members to act strictly in accordance with the principles of mutual respect for each other's territorial integrity and sovereignty, of non-aggression and of strict non-interference in each other's internal affairs.

Tunisian Accord: France and Tunisia informed the Security Council on June 18, 1958 that they had signed an agreement providing for the complete evacuation of French troops from Tunisian soil within four months, with the exception of the Bizerte naval base. Representatives of both countries stated the hope that the agreement would establish normal relations betwen their governments and open the door to an era of mutual co-operation Under the terms of the accord, the evacuation of the French troops is to be followed by negotiations to establish the status of the naval base at Bizerte.

The French representative said that the signing of the agreement, based as it was on the proposal of March 15 made by the good offices mission, made possible a satisfactory settlement of all other outstanding differences between the two countries. The meeting of the Council was one of several held by the Council in June following complaints by both countries. On May 29 Tunisia charged that French troops stationed at Remada made a sortie from their barracks and tried to force a barrier at Bir Kanbout, five days earlier. On the following day, the Tunisian letter said, French bombers and fighter planes based in Algeria attacked the Remada area. A letter to the Council from France on May 29 declared that Tunisia had disrupted the modus vivendi which had been established in Fenruary in regard to stationing of French troops in various localities in the country, and that in its troops movements and arming of civilians, the Tunsian Government had created conditions likely to lead to incidents.

Cyprus : Britain has announced a new plan for Cyprus. It proposes a programme of partnership for a period of seven years in which Greece, Turkey and Britain will participate in the administration of the Mediterranean Island. There will be two Houses of Representatives, one for Greek Cypriots and the other for Turkish Cypriots: they will, while looking after the interests of the two communities, seek to co-ordinate inter-community affairs. Prime Minister Macmillan announcing the Plan said it indicated British willingness to share Cypriot's sovereignty with the Greek and the Turkish Governments. The Greeks found the proposal totally unacceptable to them.

The U. K. Government has proposed a joint Greeko-Turkish-British sovereignty over Cyprus. The proposal aims at terminating the scramble for supremacy that has existed in the Mediterranean through ages past. For a short period in the 4th century B. C., Cyprus belonged to one of the Greek States. The island was conquered by the Turks in 1571. It was assigned by Turkey in 1878 to Britain to be occupied and administered by England, in order to enable England to make necessary provision for the executing her engagement to assist Turkey in defence against Russia, and was formally annexed by the British in 1914, its status being recognised by Turkey in the Treaty of Lausanne (1923), to which Greece, Turkey and the United Kingdom were all parties.

A constitution based on the elective principle was instituted as early as 1882, but the Legislative Council had to be suspended following disturbances in 1931 arising principally out of agitation for the union (Enosis) of Cyprus with Greece. After World War II, the United Kingdom Government made proposals for a new constitution, but the Consultative Assembly which met in 1947-48 was boycotted by the supporters of Enosis, who took the line that acquiescence in constitutional development would be a betrayal of Enosis.

Renewed efforts were made by the United Kingdom Government in 1954 to introduce a representative constitution, but only the Turkish community and some individual Greek-Cypriots were prepared to co-operate. A conference of the Foregn Ministers of Greece, Turkey and the United Kingdom met in London in August-September 1955 to consider political and defence question which affect the eastern Mediterranean including Cyprus. New British proposals were put forward, but they were not accepted by the Greeks and the Turks. After the London Conference, discussions continued, but the situation in the island showed no improvement, and on November 26, following an increase in terrorist activities, a state of emergency was proclaimed by the Governor.

In August 1956, the British Government appointed Lord Radcliffe as constitutional commissioner for Cyprus with the task of drafting a new liberal constitution. His proposals were published in December. They included safeguards for the Turkish community. The Radcliffe proposals were accepted as a basis for discussion by the Turkish Government, but were rejected out of hand by the Greek Government and the supporters of Enosis in Cyprus.

The Cyprus question was discussed at the eleventh session of the U. N. General Assembly, which in a resolution adopted in February 26, 1957, expressed "the earnest desire that a peaceful, democratic, and just solution will be found, in accord with the principles and purposes of the Charter of the United Nations, and the hope that negotiations will be resumed and continued to this end." The next move was an offer in March by Lord Ismay, the then Secretary-General of NATO, of his good offices ; but this offer, although acceptable by Britain and Turkey, was rejected by Greece. In the same month Archbishop Makarios who had been taken into custody in March 1956, for alleged complicity in terrorist activity was released from his detention in Seychelles.

In May 1957, a letter from Archbishop Makarios to the United Kingdom Government indicated that the only talks he was prepared to contemplate were between himself and the Government, to the exclusion of other and wider interests which, in the British view, had a right to be consulted. On December 14, 1957, a resolution on the Cyprus situation failed to receive the necessary two-thirds majority in the U. N. General Assembly. The British Government later suggested that Cyprus should be partitioned, but this was also not accepted by the parties. The Cyprus situation still remains unsolved.

VI. UNITED ARAB REPUBLIC

On January 27, Egypt and Syria united into one State known as the United Arab Republic. The new state has one Chief of State and one foreign minister. The armed forces and educational systems of the two countries have already been unified. The Parliaments of both these two countries ratified the union. The President of the United Arab Republic will be chosen by referendum. A provisional regime has been established until the constitutions of Syria and Egypt can be modified to permit a federal status and a single President regime for the two countries. At the same time, the public services of the two countries will be unified. A single Parliament made up of the present members of the Egyptian and Syrian National Assemblies is also planned and the new State has one cabinet.

Legislative power will be exercised by a national assembly, whose size will decided upon by a decree of the President of the Republic. At least half the members of the Assembly must be chosen from among members from the Egyptian and Syrian Parliament. The Assembly will sit in Cairo, but may be convened elsewhere at the request of the President. The Constitution of the new state is a democratic independent and sovereign republic. Private property is protected by law and infringements upon it can only be made in the public interest and in return for just compensation. The constitution is secular in character.

VII. THE SITUATION IN ALGERIA

Algeria was in ferment and there was outbreak of violence all over the country demanding independence. It is reported that sixty-two thousand Algerian nationalists had been killed by the French since November 1954, when the Algerian movement for national liberation began. This was disclosed by the French Minister of Defence, M. Chaban-Delmas. In contrast only six thousand Frenchmen lost their lives. For 45 months the French had been engaged in a bloody struggle against an Arab independence movement led by the National Liberation Front in Algeria which is juridically a part of Metropolitan France and which is represented by thirty seats in her Assembly Nationale.

The Algerian struggle had tied down a French army of 45,000, about half of her total armed forces, cost the lives of 5,000 Frenchmen and 50,000 Algerians and drained French treasury the rate of Rs. 25 million day. It has exacerbated France's relations with her allies and supplied fuel to the new pan-Arab movement of Nasser. More than all these, it has inflamed feelings within France itself where many homes have been rendered desolate, many families deprived of their wage-earners, many mothers have lost their sons and many wives, their husbands.

So soon after assumption of office, De Gaulle hurried to Algeria, with two objectives in view, first to resore the authority of the Government over the rebel army command and second to set in motion a settlement of the Algerian war. With regard to the first, he succeeded in bringing the rebel army under his control. After a show of some opposition, Massu, Soustelle, Delbecque and other French Generals in Algeria, who called De Gaulle to power but only wanted to use him as a Neguib for a French Nasser quietly surrendered to him and like good soldiers, promised to obey orders.

With regard to the second objective, he promised all Algerians French citizenship. He said, "For these 10 million Frenchmen (meaning the people of Algeria) their vote will count the same as those of all others. He declared that the Algerians would elect a representative assembly of their own and French Government would consult with it on Algeria's future status.

The difficulty with vested interests is that they cannot keep pace with the march of time. Had France made this offer a decade ago, it would have been taken as a generous one by the Algerians. But today it may have been too late. It has been given a cold reception by the National Liberation Front. In its opinion, de Gaulle's move is a build-up for an offer of integration. A Liberation Front spokesman said "We want Algerian citizenship, not French." And in the wake of the de Gaulle declaration there were fresh outbreaks of violence. The Algerian situation remains undecided.

VIII. COMMUNIST CHINA AND THE OFFSHORE ISLANDS

Communist China claimed Quemoy, a island at a distance of 12 miles from the mainland China. Communist China began to shell heavily this island, and the USA helped the Chiang Ki-shek regime to defend itself against the attack of mainland China. The Communist seizure and consolidation of power on the mainland of China a decade ago initiated an era of grave and almost continuous crisis in the Far East. Fundamentally, the crisis was caused by the expansionist pressure of the Peking regime in co-operation with Russia and the world communist movement.

The conflict between the Chinese regime and the nationalist Government on Taiwan was at first largely symbolic. Chiang Kai Shek fled to Taiwan and several of the smaller offshore islands with an army of about of 600,000 after his government collapsed on the mainland in 1949. But his cause was clearly hopeless ; his threats to reconquer the mainland was hollow. Up to the summer of 1950, official United States policy was to deal cautiously with Chiang, discouraging his actions of reconquest, and to accept the fact that Peiping would ultimately establish control over Taiwan and the smaller offshore islands.

Communist aggression in Korea in 1950 changed that policy. The USA revaluated the strategic importance of Taiwan—a link in the great island chain formed by Japan to the north and the Philippines to the South—in the light of the clear evidence that the Communists were ready to pursue their Far East aims by force. President Truman ordered the Seventh-Fleet to patrol the waters in the 100-mile wide stretch between Taiwan and the mainland and in 1953 President Eisenhower announced a policy generally described as unleashing Chinag Kai shek. Practically Chinag has no power to take any action unless he is so helped by the USA.

But the new policy of the USA committed her to the fortunes of the Chinag Government and the territory it held, including a number of island rights on the Communist China's doorstep. Chief among them were the Quemoys, which lies just off Amoy harbour, three to five miles from the coast, and the Matsus, 150 miles to the north and about ten miles from the mainland.

The Quemoy and Matsu islands have since become the danger points in the conflict between Communist China and the USA in the Far East. The first major crisis over them occurred in 1955 when Peiping launched a series of raids and artillery attacks as an apparent preclude to invasion. The U.S. response was the Formosa resolution of 1955, overwhelmingly passed by both Houses of Congress, which states : "That the President of the United States be and hereby is authorised to employ the armed forces of the United States as he deems necessary for the specific purpose of securing Formosa (Taiwan) and the Pescadores (a group of islets off the coast of Taiwan).

In terms of Quemoy and Matsu, the meaning of the resolution was to leave to the President's discretion whether an attack on the islands might be a threat to the security of Taiwan. The Chinag Government, however, interpreted the resolution as encouragement to reinforce its garrison on Quemoy and Matsu. A steady military build-up began. The United States' allies were deeply disturbed by the Formosa Resolution and the potential commitment to Quemoy and Matsu. But Communist pressure against the island ceased after the Formosa resolution and the issue receded.

Then in August 1958 signs began to accumulate that new trouble was brewing. On July 31, Soviet Premier Krushchev journeyed to Peiping for a four day conference with Chinese Communist leader Mao Tse-Tung. In the weeks immediately following the Peiping conference, the evidence pointed to a Mao-Krushchev decision on new military moves in Taiwan Strait. Stepped up communist bombardment of Quemoy resulted in August 23 in the heaviest shelling in the island's history. The attacks produced warnings from Secretary of State, John Foster Delles and President Eisenhower, but the warnings had no marked effect on Communist military activity in the Strait. Once again the question came up as to whether the United States, under the terms of the Formosa resolution, intended to defend the offshore islands. The last week of August began with concentrated efforts by the Communists to blockade the 100,000 man Quemoy garrison with fleets of torpedo boats. The blockade is creating a serious problem for the Nationalists. Now the position is slightly improved.

IX. ANTARCTIC TREATY

The continent of Antarctica has been under exploration for more than a century. Seven nations—Argentina, Australia, Chile, France, Britain, New Zealand have laid claim to parts of it. Some of the claims overlap. During the current International Geophysical year, Russia entered the Antarctic for the first time in more than a century. This has raised the question of an international agreement on Antarctica.

In May 1958, President Eisenhower invited the seven claimants, plus Belgium, Japan, South Africa and the Soviet Union which have done I. G. Y. work in the Antarctic to join the U.S. in a treaty assuring freedom of scientific investigation in the Antarctic by all nations and use of Antarctica for peaceful purposes only. President Eisenhow has urged an international treaty that would minimise territorial claims in the Antarctic—or at least "freeze" them at their present status—and permit further peaceful resarch in the area to the advantage of all. Eleven nations have now responded favourably to support the negotiations of such a treaty.

X. THE FIFTH REPUBLIC IN FRANCE

With the fall of the Fourth Republic in France in the middle of the year 1958, the fifth republic has been ushered in with General de Gaulle as the head of the Government. The fall of the fourth republic was accelerated on account of revolt by several French generals in Algeria. The inside story of the fall reveals a state of political bankruptcy and lack of courage on the part of those Frenchmen on whom lay the responsibility to defend their republic. It is the story of a nation in decay. It is said that National Assembly's acceptance of General de Gaulle was the product of an intricate series of manoeuvres, but it also sprang from the deep unwillingness of the French to defend their Parliament. The deputies who had never had the courage to denounce the reactionary Algerian policy have now been swallowed up by it.

If on the first day of the revolt—May 13—the French had acted vigorously against the Algiers' revolting generals, the latter might have submitted and the crisis might have passed. The French constitutional referendum on September 28, resulted in a resounding vicoty for General de Gaulle. The official result of the referendum for the whole of the Metropolitan France, including Corsica, was "yes" 17,666,828 ; and "no" 4,624,475. Between 85 to 90 per cent of the electorate voted and officials said that a record number of the 26,772,255 on the register went to the polls. The General was elected as the President.

The new constitution may be described as a Presidential type of Government. It has curtailed much of the existing power of the French Parliament and transferred those through the Government to the President. It also provides for a shorter Parliamentary session (to be not more than five and a half months) and also curtailed the legislative competence of the Parliament. It would henceforth not be easy to vote down a Government, or even Government proposals. For both, an absolute negative majority would be necessary. On the other hand the President would be able to dissolve the Parliament much more easily and even to appeal to the people over the head of Parliament through a referendum. The great loser in the new constitution is certainly the French Parliament, but the Premier and his Cabinet gain only partially. The real winner is the President of the Republic. And this powerful President is neither directly elected by the people, nor rsponsible to the directly elected National Assembly.

XI. HUNGARY

The five-nation Special Committee of the UNO on Hungary, after a series of meetings which began in June 1958 after the announcement of the execution of Imre Nagy, Pal Maleter and two other Hungarians, on July 14, issued a report. Imre Nagy was Prime Minister of the Hungarian Government during 1956 uprising which was overthrown in 1956 after a Soviet Union military intervention. Nagy and his two companions who had taken refuge in the Yugoslav embassy were kidnapped by the Russians and General Maleter was arrested at a meeting.

The Hungarian Government, the report points out, had pledged immunity to the leaders of the uprising and that the action of the Hungarian Government in bringing Imre Nagy to trial was contrary to solemn assurances which Mr. Kadar, the Hungarian Premier on behalf of the Hungarian Government, had previously given. The execution of Imre Nagy and his companions, the report declares, has special significance, because Mr. Nagv as Prime Minister of Hungary, had appealed directly to the United Nations. But his fate should not be allowed to distract attention from the many other sentences officially announced concerning persons accused of connections with the 1956 uprisings. It cannot be taken for granted that all sentences have been published.

The Committee appended to the report a list of thirty death sentences said to have been imposed. In addition, it names well over a hundred men and women sentenced to prison terms for slight offences. The sentences were all the more disturbing became they came after a number of public assurances by Hungarian leaders that a period of stablization had begun and that proceedings against persons accused of participating in the uprising were virtually over. The Committee observed that while the arrest of General Maleter and the abduction of Mr. Nagy and his companions were undertaken by Soviet personnel, nevertheless the Hungarian Government, in announcing the subsequent trials and executions, had accepted full responsibility. These secret trials and executions showed continued disregard for the resolution of the General Assemblv and for human rights as defined in the Universal declaration of Human Rights and the Charter of the United Nations.

Despite Hungarian Government declarations, the Committee found, no real change has been made either in the summary procedure of the Hungarian courts against alleged rebels nor in the practices of the political police. The report questions official statements by the Hungarian Government regarding the gradual withdrawal of Soviet troops. On May 24, it declared. Mr. Kedar announced the withdrawal of 17,000 Soviet troops from Hungary, but gave no information as to the nature of the troops withdrawal or the troops that remained. Neither this announcement nor any other available evidence had enabled the Committee to conclude that there was a complete withdrawal of Soviet armed forces, as urged by the General Assembly.

XII. FALL OF DEMOCRACY

In recently years the disorder in democracy has outweighed its usefulness in a number of Asian and African nations that have attempted parliamentary government. In one nation after another, a military dictatorship or some other form of authoritarianism has taken over, posing a new question of the viability of the whole democratic system for certain kinds of countries and societies. The latest country to abrogate democracy is the *Sudan.* A military dictatorship under the General Ibrahim Abboud, Commander-in-Chief of the armed forces ousted the elected government of Premier Abdulla Khalil. In *Pakistan,* Gen. Mohammed Ayub Khan has suppressed civil regime and taken control. In *Burma* Gen. Ne Win, head of the military forces assumed the leadership of the government in October 1958, as a result of an agreement with the quarreling political party. In October in *Thailand*, the Government was turned into complete military rule when the Field Marshal Sarit Thanarat, head of military forces dismissed the government tore up the constitution and began to run the country as an unbridled dictator. In July 1958, a coup in *Iraq* brought a change from the authoritarianism with parliamentary trappings of Nun-es-Said to the military dictatorship of General Karim-el-Kassem. From October 1958, a mild of sort of dictatorial role is being played by Gen. Abdul Nasutian, army chief of staff and the armed forces in *Indonesia* by the renewal of emergency regulations which has reduced Parliament and presidentially appointed Cabinet to an ill-defined legislative and administrative status.

The reasons for the failure of democracies though vary from country to country but certain fractors are common to all.—(1) All have a background of colonial or semi-colonial domination that inhibited the development of political maturity and a sense of responsibility among their leaders. Under colonialism the politicians and bureaucrats were kept in subordinated roles and did not get adequate experience in Government. (2) All countries are economically backward. (3) The political traditions in all these countries were despotic rather than democratic. (4) Lack of substantial financial resources to operate democratic system. Personal following and political party machines had to be financed and the trapping of social status of high officials maintained. This led almost everywhere to corruption. (5) Inexperienced new officials floundered with acute economic problems. (6) Internal and external threats which caused apprehension and insecurity, such as in Burma where communists and rebels were constant problem. In Indonesia where non-communists were also a big problem.

India and Philippines are notable examples among the independent countries of Asia that are continuing to operate a democracy successfully.

XIII. THE BERLIN CRISIS

A new political crisis cropped at the end of 1958 between Western powers and U.S.S.R. regarding the status of Berlin. Before we state the cause of Berlin crisis, let us state the position of two Germanys. Germany has existed since the end of World War II in two parts—*West Germany*, occupied after the war by the U. S., Britain and France. Since 1949, it is known as West German Federal Republic with sovereign authority, strongly pro-western and a NATO member. *East Germany* was originally the Soviet occupation zone. Since 1949 it is known as the German Democratic Republic with independent status.

Berlin, the former capital of Germany has a special status in divided Germany. Although it is wholly surrounded by the Soviet occupation zone, each of the Big Four Powers, England, U.S.S.R., France, U.S.A., controls a sector. The Western Powers have access to their sectors by road, rail, canals and air. These basic divisions were made by Big Four military commanders after Germany fell in 1945. It was ratified by the Prime Ministers of Big Powers at Podsdam in 1945. But Big Four never reached agreement on final peace treaty. In 1948 the Russians tried to block the west-occupied sector of Berlin. The West supplied the city by plane and after a year the Russians abandoned the blockade. The Western access to the city is over a designated net work of highways railways, a canal and three air corridors from Frankfart, Honover and Hamburgh of Western Germany. The control points for Allied traffic are manned by the Soviet Union.

In the last week of November, 1958, Soviet Premier Mr. Khrushchev sent the following note to Western Powers occupying three zones of Berlin—The Soviet Government has resolved to abolish the occupation regime in Berlin. At the same time, the Soviet Government is ready to open negotiations with the West on granting West Germany the status of a demilitarized free city. Russia wanted to make this change in half a year. The Russian note further said that it is patently absurd for Russia to support the present Government when the West is using its position in Berlin for anti-Soviet espionage. If the West then used force to hold its position in West Berlin, Russia would fight.

XIV. DEMOCRACY IN AFRICA

Africa in divided into half a hundred territories—some independent, some under United Nations trusteeship, some European colonies. At the end of World War II, only four African States were independent, Ethiopia, Liberia, Egypt and the Union of South Africa. Since then six more nations have become free,—Tunisia, Morocco, Libya, Sudan, Ghana and Guinea. In November 1958, Ghana and Guinea announced a plan to federate. Ghana is the former British Crown colony of the Gold Coast and Togoland which won its independence as a Commonwealth member in 1957. Guinea is a former French colony which proclaimed its freedom in October 1958 after voting overwhelmingly to reject the new French Constitution and continued association with French. Premier KNkrumah of Ghana and Premier Sekow Toure of Guinea jointly announced in November 1958—On behalf of our respective governments and subject to the ratification of our respective national assemblies, we have agreed to constitute our two States as the nucleus of a Union of West African States. We would welcome adherence to the Union of other African States. British Government was completely surprised at this declaration. The British raised the question of how Ghana could federate with Guinea—and thus bring it into association with the Commonwealth without the consent of other Commonwealth members.

WORLD POLITICS IN A NUTSHELL

United Nations

Major Block in the General Assembly of the United Nations :—
Western consisting of 23 nations.
Soviet consisting of 10 nations.
Afro-Asians consisting of 28 nations.
Latin Americans consisting of 20 nations.

Latest member to join U.N. in December 1958 is *Guinea* which gained independence from France.

TREATIES & PACTS

Rio Treaty—A treaty signed in August 1947, under which the signatory nations pledge themselves in the event of aggression against any one of them, to provide assistance to that nation on request.

Members

United States
Cuba
Honduras
Mexico
Guatemala
El Salvador
Nicaragua
Haiti
Diminican Rep.
Costa Rica
Panama
Venezuela
Ecuador
Colombia
Peru
Bolvia
Paraguay
Brazil
Chile
Argentina
Uruguay

North Atlantic Treaty—A treaty signed in 1949 under which the members agree to regard an attack on one as an attack on all, and to aid the one attacked.

Members

United States
Canada
Iceland
Norway
United Kingdom
Netherlands
Denmark
West Germany
Belgium
Luxemburg
Italy
Portugal
France
Greece
Turkey

Anzus Treaty—A treaty signed in September 1951, under which members acknowledge that an attack in the Pacific against any will involve all, and agree to "act to meet the common danger."

Members

United States
New Zealand
Australia

Manila Treaty—was signed at Manila in September 1954, that set-up the South-east Asia Treaty Organisation (SEATO) covering the "general area of South-east Asia" and the Western Pacific. In case of aggression, its members are to "consult immediately in order to agree to measures which should be taken for common defence."

Members

United States
United Kingdom
New Zealand
Australia
Thailand
Pakistan
Philippines

Bagdad Pact—A treaty in which five nations joined in November 1955 to set-up the Middle East Treaty Organisation.

Members

United Kingdom
Turkey
Pakistan
Iraq
Iran

Warsaw Pact—counterpart of NATO. The main provision of the pact is, an attack on one shall be regarded as an attack on all. There is a unified military control.

Members

Albania
Bulgaria
Czechoslovakia
East Germany
Hungary
Poland
Rumania
U.S.S.R.

COMMUNIST WORLD

	Area (sq. m.)	*Population*
Soviet Union	8,700,000	200,200,000
Outer Mongolia	615,000	1,000,000
Albania	10,600	1,400,000
Bulgaria	42,800	7,600,000
Rumania	91,600	17,700,000
Hungary	35,900	9,800,000
Poland	120,350	28,200,000
Czechoslovakia	49,400	13,400,000
North Korea	48,500	8,200,000
East Germany	42,100	17,600,000
China	3,700,000	627,800,000
North Vietnam	63,000	12,000,000
Total	13,519,250	944,900,000

UNITED STATES' 49th STATE

United States of America had 48 States. The American flag had 48 Stars representing 48 States. In 1958 Alaska has been added to the United States making it 49th State of the United States.

U. S. FOREIGN ECONOMIC AID SINCE WORLD WAR II

Western Europe	*Billion*
U. K.	$ 7.1
France	$ 5.5
W. Germany	$ 3.9
Italy	$ 2.9
Other	$ 5.5
Total	$ 24.9

American Republics	*Billion*
Brazil	$ 0.4
Mexico	$ 0.2
Peru	$ 0.1
Bolivia	$ 0.1
Other	$ 0.6
Total	$ 1.4

Near East & Africa	*Billion*
Greece	$ 1.4
Turkey	$ 0.6
Israel	$ 0.5
India	$ 0.4
Pakistan	$ 0.3
Other	$ 0.9
Total	$ 4.1

Asia & Pacific	*Billion*
Japan	$ 2.4
S. Korea	$ 2.0
Taiwan	$ 1.4
Philippines	$ 0.9
Other	$ 1.7
Total	$ 8.4

Military Aids by U.S.A.	*Billion*
Asia & Pacific	$ 5.2
American Republics	$ 0.3
Western Europe	$ 12.3
Near East & Africa	$ 2.9

MAJOR GROUPINGS AT THE UNITED NATIONS

Special Note—The various groups do not vote as units. Latin Americans most often join together. Yugoslavia some times splits with the other communists. The Western Nations often divide on specific issues. The Asian-Africans split on many issues as to whether they are Western allies or Neutralists.

Western Nations—23

1. Australia
2. Austria
3. Belgium
4. Canada
5. Denmark
6. Finland
7. France
8. Greece
9. Iceland
10. Ireland
11. Israel
12. Italy
13. Luxemburg
14. Netherlands
15. New Zealand
16. Norway
17. Portugal
18. Spain
19. Sweden
20. Turkey
21. Union of S. Africa
22. United Kingdom
23. United States

Communist—10

Albania
Bulgaria
Bylorussion S.S.R.
Czechoslovakia
Hungary
Poland
Rumania
Ukrainian S.S.R.
U.S.S.R.
Yugoslavia

Asian-African--28

Afganistan
Burma
Cambodia
Ceylon
Ethiopia
Ghana
India
Indonesia
Iran
Iraq
Japan
Jordan
Laos
Libaria
Lebanon
Libya
Malaya
Morocco
Nepal
Pakistan
Philippines
Saudi Arabia
Sudan
Taiwan (Rep. of China)
Thailand
Tunisia
United Arab Republic
Yemen

Latin America-20

Argentina
Bolivia
Brazil
Chile
Colombia
Costa Rica
Dominican Rep.
El Salvador
Guatemala
Haiti
Honduras
Mexico
Nicaragua
Panama
Paraguay
Peru
Uruguay
Venezuela

SOME SIGNIFICANT VOTINGS IN THE UNITED NATIONS

1. *Vote on whether to debate Hungarian Situation : Sept. 22, 1958.*

For—61		*Against—10*		*Abstaintion—10*	
Western	22	Communist	10	Western	1
Latin American	20			Asian-African	9
Asian African	14				

2. *Vote on whether to postpone debate on seating China in U.N. Sept. 23, 1958.*

For—44		*Against—28*		*Abstantions—9*	
Western	13	Communist	10	Western	5
Latin American	20	Asian African	13	Asian African	4
Asian-African	11	Western	5		

3. *Vote to continue arms talks on the basis of Western Plan, Nov. 14, 1957.*

For—56		*Against—9*		*Abstention—15*	
Western	21	Communist	9	Western	1
Latin American	20			Communist	1
Asian-African	15			Asian-African	13

4. *Vote to establish U.N. Emergency force in Suez War, Nov. 4, '56.*

For—57		*Against—0*		*Abstantion—19*	
Western	16			Western	7
Latin American	20			Asian-African	3
Asian-African	20			Communist	9
Communist	1				

INDO-PAKISTANI RELATIONS

The Indo-Pakistani relations revolve around three fundamental questions, namely, the Kashmir problem, the problem of canal waters and the border issues. Unfortunately, these three issues practically remain unresolved. Their present position is indicated below.

KASHMIR ISSUE—In accordance with the Security Council's resolution of Dec. 2, 1957, Dr. Frank P. Graham, the U. N. Representative for India and Pakistan visited the sub-continent from Jan. 12 to Feb. 15 for discussions with the two Governments on the Kashmir question. In this report published on April 3, 1958 Dr. Graham gave details of a five point plan for settlement of the Kashmir dispute which he had submitted to the two Governments. This envisaged declarations by India and Pakistan appealing to their peoples to maintain an atmosphere favourable to negotations and reaffirming the inviolability of the cease-fire line ; the evacuation of the Pakistani forces from Kashmir and the stationing of an U.N. force on the Pakistani side of the Kashmir border ; the discussions between the U.N. Representative and the two Governments on the possibility of a plebiscite ; and a meeting between the two prime ministers at the earliest possible date. These recommendations were accepted by the Pakistani Government in principle, but were rejected by India on the grounds—(a) that they by-passed the question of Pakistan's failure to implement the resolution on August 13, 1948 of the U.N. Commission for India and Pakistan and (b) that they would place "the aggressor and the aggressed in the same footing."

INDO-PAKISTAN WATER DISPUTE—The Indo-Pakistan dispute over the sharing of the Indus waters remained unsolved, although the World Bank had been trying through its good offices to bring about a settlement. Several meetings were held between India and Pakistan, but no solution has been reached. Pakistan is opposing to India's building up of the Nangal Dam, contending that it would adversely affect the water supply of the river Sutlej and with the completion of the Bhakra Dam Scheme, it would considerably reduce the water supplies of the Indus river.

The origin of the dispute may be traced to the partition of India in 1947. The area under cultivation in the plains watered by the Indus river system is nearly 26 million acres in India and 39 million acres in Pakistan and this comes in the ratio of 40 : 60. Of this area in India, nearly 18 per cent is irrigated, and of Pakistan 39 million acres, about 51 per cent are irrigated by the Indus water. India uses only 5 per cent of the total inflow of these rivers as against 39 per cent by Pakistan. In undivided India, the number of population was 4.20 crores. Of this, Pakistan has got 2 crors of population and India 2.20 crores. That is, India has got 20 lakh more people than Pakistan. India therefore has to devise some measures for irrigating her land.

The Standstill agreement concluded between India and Pakistan in December 1948 lays down that India would give a continuous supply of water to Pakistan on the basis that existed on the date of partition for the period till March 31, 1948. After March 31 1948, India would have the right to reduce the supply of water gradually in order to give Pakistan time to devise alternative sources of supply of water for her irrigation purposes. The Standstill agreement has vertually expired and the Government of Pakistan took no effective steps to renew the same. As the agreement lapsed, the Government of India discontinued supply of water to Pakistan from 1st of April 1948 and for this Pakistan was solely responsible. However, pending the discussions between the Governments of the two countries, India resumed the supply of water from 30th April 1948. Finally, an agreement was reached between India and Pakistan on the 4th May 1948 and under the terms of this agreement, India agreed not to withhold suddenly the suply of water to Pakistan. It was also agreed that India would diminish the suply gradually so that Pakistan may get reasonable time to tap alternative sources. But soon after Pakistan tried to avoid this agreement on one pretext or the other.

Pakistan meanwhile wanted to refer the dispute to the International Court of Justice. But India did not agree to that. In 1951, Mr. Lilienthal, the former head of the Tennesse Valley Authority stated in an article that "India too must have more water (of the Indus) or starve." In his view, the canal water dispute is not a religious or political one, but a feasible engineering and business problem which should be settled on an engineering basis with the help of the World Bank.

Then in 1952 the World Bank took up the dispute and lent its good offices in settling it. After prolonged negotiations, the World Bank in February 1954 made the following proposals :

(1) The entire flow of Western rivers (the Indus, the Jhelum and the Chenab, is to be available for the exclusive use of Pakistan except for a small volume of flow for Kashmir.

(2) The entire flow of the rivers (the Ravi, the Beas and the Sutlej) is to be available for exclusive use in India, except that for a specified transitional period when India will have to supply Pakistan its periodical withdrawals from these rivers. This transitional period, which is expected to end in another five years, is to be worked out on the basis of the time required to complete the link canals needed by Pakistan to replace these supplies.

(3) Each country is to construct the works located within its territoryy, the cost of such works being borne by the country benefiting thereby.

(4) Although no works are planned for the joint construction by the two countries, some link-canals in Pakistan will be needed to replace supplies from India, and India must bear the cost of such works to the extent of the benefit derived by it therefrom.

Under these proposals, seventy per cent of the water resources of the Indus basin has been allotted to Pakistan. Pakistan's rivers are larger than those of India. The Sutlej does not carry much water in the off-season. Further, India has to bear the cost which Pakistan will incur in constructing the necessary links to make good the loss of supply from India. The cost of such links is estimated to be Rs. 60 crores. Yet India expressed its readiness to accept the Bank's award in the interest of peace between the two countries. But Pakistan did not accept th proposals.

India declares that she has the right to reduce the water supply to Pakistan. But India does not want to stand on legal rights in this matter. Pakistan has been given enough time to make alternative arrangements for her water supply. But she did not do anything in the matter. In December 1958, negotiations were again opened between the two countries under the auspices of the World Bank. But no result has been reached so far. India has made it clear that beyond 1962 she will not supply the Indus water from her share to Pakistan. India has meanwhile diverted a part of the flow of the Sutlej in the newly constructed Nangal Hydel channel.

Pakistan has already built link canals to replace approximately half (five out of ten million acre feet) of water given to her from Indian sources. India is willing to pay for these replacement works which are estimated to cost Rs. 24 crores. Negotiations now hinge on the replacement of the other five million acre feet of water. Pakistan wanted India to pay her more than Rs. 350 crores for dams and canals, according to their plan. It was found that these dams and canals were not strictly necessary for replacement and sought to develop irrigational uses for Pakistan's benefit.

India has now worked out a plan which would cost her almost five or six times less and yet would be able to fully replace the waters. The idea is to divert some waters of the river Chenab, a river allotted to Pakistan under the World Bank proposals, under the Rhotang Pass in India and let her waters flow down to Pakistan through the Indian river and canal system. India would guarantee to supply to Pakistan at the order exactly the same amount of water as she diverted from the Chenab. India is also willing to pay for a few other miscellaneous works to fully replace the waters.

The main Pakistan objections to the Indian plan appear to be that she does not wish to remain dependent upon any water passing through India.

INDO-PAKISTAN BORDER DISPUTES—Indo-Pakistan relations deteriorated in the latter half of 1958. Due to great political changes in Pakistan, the Pakistan Constitution was abrogated by President Mirza, then he in turn was ousted by General Ayub Khan who assumed supreme control of Pakistan administration. General Iskandar Mirza had to resign from the Presidency of Pakistan and left the country for the United Kingdom. With the assumption of power by Ayub Khan, there have been heavy concentrations of Pakistan army along the entire eastern borders of India. Pakistan has been continuing large-scale and heavy firings at Indian border areas thereby killing men and animals.

In order to settle the border disputes, an agreement was reached between Prime Minister of India and the Prime Minister of Pakistan (Mr. Firoz Khan Noon). The agreement on border disputes between the two countries was reached on September 11, 1958. The two Prime Ministers arrived at agreed settlements in regard to most of the border disputes in the eastern region. They also agreed to an exchange of enclaves of the former Cooch Behar State in Pakistan and Pakistan enclaves in India.

They further agreed that, pending settlement of unresolved disputes and demarcation and exchange of territory by mutual agreement, there should be no disturbance of the status quo by force and peaceful conditions must be maintained in the border regions. A joint communique was issued embodying the decisions of the Prime Ministers. Some of the border disputes, namely, two regarding the Radcliffe and Bagge awards in the eastern region, and five in the western region, require further consideration. For the permanent settlement of border disputes, the Prime Minister of India declared that he would accept arbitration on the matter, but the Pakistan declined to accept arbitration.

Nine out of the eleven disputes on the eastern border has been settled. A dispute relating to the Feni river had been left over for further consideration. The other unresolved dispute relates to the Kushaira river which was finally settled by the Bagge tribunal, but the award has not been implemented so far. The Pakistan Prime Minister explained that as a result of the agreement to exchange enclaves of the former Cooch Behar State in Pakistan and Pakistan enclaves in India, a total gain of about eleven square miles would be made by Pakistan.

In the Western region, the five unresolved disputes relate to the canal headworks at Husainiwala and Suleimanke, certain villages near Lahore and Kasur and the Chad belt in the Rann of Cutch, which was the scene of armed conflict some years ago.

The agreement between the Prime Ministers dealt with the following problems and the lines of settlement to be adopted in each case:

(1) Demarcation of boundaries held up because of differences between India and Pakistan over the interpretation of boundaries as fixed by the Radcliffe and Bagge awards, or because of differences over the basis of demarcation.

(2) Exchange of territories consequent on demarcation carried out in accordance with the Radcliffe and Bagge awards along certain sectors of the boundary between East Pakistan and West Bengal.

(3) Difficulties created by the existence of Indian enclaves (old Cooch Behar State enclaves) in Pakistan and Pakistan enclaves in India.

Agreement was reached on the settlement of the problems of the first type which were holding up demarcation in the following regions:

(i) Hilli ;

(ii) Berubari Union No. 12.

(iii) Two chit lands of old Cooch Behar State adjacent to the Radcliffe line.

(iv) Twenty-Parganas district of West Bengal and Khulna and Jessore districts of East Pakistan.

(v) Bholaganj in Assam ; and

(vi) Bhagalpur village in Tripura State.

January 15, 1959, was fixed as the date for exchange of territories in certain sectors of East Pakistan-West Bengal boundary, where demarcation had been completed in accordance with the Radcliffe and Bagge awards. The Government of West Bengal was advised to take necessary steps for the exchange of the areas in question by the due date.

No agreement has been reached on differences in interpretation of the Radcliffe and Bagge awards in the case of two areas along the Assam-East Pakistan boundary and on differences in interpretation of the Radcliffe award in case of four areas along the Punjab-West Pakistan boundary. In addition, there was a difference of view regarding the basis of demarcation along the Indian-West Pakistan border in the Cutch Sind region. There are 123 Indian enclaves which are completely surrounded by Indian territory, and 74 Pakistani enclaves similarly completely surrounded by Indian territory. It is not possible for local Governments concerned to have direct access to these territories. As this led to serious difficulties in administering these areas, this problem was settled by an agreement to exchange these enclaves.

There has been a recrudescence of border incidents and case of ill-treatment and harassment of Indian nationals at the border check posts. Incidents of cattle lifting or petty thefts by Pakistani nationals are now common feature of border relations between the two countries.

INDIAN AFFAIRS

ATOMIC ENERGY COMMISSION—The Government of India have decided to establish an *Atomic Energy Commission* with the full executive and financial powers, modelled more or less on the lines of the Railway Board, says a resolution published in the *Gazette of India* on March 15, 1958. Since the establishment of the Department of Atomic Energy in August 1954, research and development in the peaceful uses of atomic energy have made important and rapid strides. A greatly expanded programme is envisaged for the future, in the course of which India should be able to produce all the basic materials required for the utilization of atomic energy, and build a series of atomic power stations which will contribute increasingly to the production of electric power in the country. These developments call for an organization with full authority to plan and implement the various measures on sound technical and economic principles and free from all non-essential restrictions or needlessly inelastic rules.

The special requirements of atomic energy, the newness of the field, the strategic nature of its activities and its international and political significance have been taken into consideration in setting up the Atomic Energy Commission which replaces the one set up in 1948. The Commission consists of the full time and part time members. The total number of members will not be less than three and not more than seven. The Secretary to the Government of India in the Department of Atomic Energy in the ex-officio Chairman of the Commission. Another full-time member of the Commission will be the Member of Finance and Administration, who will also be ex-officio secretary to the Government of India in the Department of Atomic Energy in financial matters. The Director of the Atomic Energy Establishment will be the third ex-officio full time member in charge of research and development.

The Atomic Energy Commission will be responsible for formulating the policy of the Department of Atomic Energy for the consideration and approval of the Prime Minister and for preparing the budget of the Department of Atomic Energy for each financial year and getting it approved by the Government. The Commission will also be responsible for the implementation of the Government's policy in all matters concerning atomic energy. Within the limits of the budget provision approved by Parliament, the Commission will have the powers of the Government of India, both administrative and financial, for carrying out the work of the Department of Atomic Energy. The Chairman, in his capacity as Secretary to the Government of India in the Department of Atomic Energy, is responsible under the Prime Minister for arriving at decisions on technical questions and advising the Government on matters of atomic policy. All recommendations of the Commission on policy and allied matters is to be put up to the Prime Minister through the Chairman.

The Chairman has the power to override the other members of the Commission, except that the member for Finance and Administration have the right to ask that any financial matter in which he does not agree with the Chairman be referred to the Prime Minister and the Finance Minister. The member for Finance and Administration exercises the powers of the Government of India in all financial matters concerning the Department of Atomic Energy. No proposal with financial implications is to be sanctioned without his prior concurrence. The Commission will frame its own rules of procedure and will meet at such times and places as may be fixed by the Chairman.

REORGANIATION OF PLANNING COMMISSION

The Planning Commission has been reorganized in the following way ;

(1) Creation of new Division to deal with—
 (a) Perspective Planning ;
 (b) Scientific and Technical Man-power ;
 (c) Statistical Surveys ;
 (d) International Trade and Development.

(2) Strengthening of some of the existing Divisions, particularly those connected with collection of economic and statistical intelligence.

(3) Arrangements designed to achieve better co-ordination by grouping of Divisions dealing with allied subjects.

(4) In order that the Planning Commission should undertake independent studies various problems, Heads of Divisions should, as far as possible, be full-time officers.

(5) There should be no duplication in the Planning Commission of the work that is being done in the Ministries, and fullest co-ordination between the Ministry and the Divisions concerned in the Planning Commission should be established.

(6) The Advisers on Programme Administration should be more effectively associated with the work of the Planning Commission. Since the Planning Commission is interested in all programmes, both Central and State, steps should be taken to ensure that the Central Ministries take full advantage of the assistance of advisers.

These proposals have been accepted and are being implemented.

REPORT OF THE UNIVERSITY GRANTS COMMISSION

The first report of the University Grants Commission was placed before the Lok Sabha on March 3, 1958. It highlights the important activities of the Commission during the period December 1953 to March 1957. The Report at the same time underlines the problem of higher education in the country. The Commission first came into existence on December 28, 1953, and became a statutory body from November 5, 1956 by an Act of Parliament passed in March 1956.

The Report expresses the hope that before long the Commission's efforts will result in providing at least the minimum conditions necessary to create and maintain high academic standards in an atmosphere free from anxiety and coercion. The main functions of the Commission, according to the University Grants Commission Act, are to take all such steps as it may think fit for the promotion and co-ordination of University education and for the determination and maintenance of standards of teaching, examination and research in Universities. The following important observations were made in the Report :

Measures have to be taken both to control numbers and to provide for expansion. We have to attempt to secure a right balance between the humanities, the social science, and the natural science and the professional and technological courses. But our primary concern at present is the improvement of standards and facilities. From this viewpoint, consolidation rather than expansion is the need of the day. The average direct expenditure per University student in India today is about Rs. 500 per annum, whereas in the U. K. it exceeds Rs. 5,000. We cannot hope to achieve any marked improvement in our standards if the increase in the number of students constantly and very rapidly overtake the available facilities. What the UGC can do to improve the standards of equipment and education in Universities will depend very largely on the funds available to it and the freedom of option it may enjoy.

At present in India about 2.2 per cent of the University age group students (estimated at 10 per cent of the national population) are on the rolls of Indian Universities, including professional and technical courses, as compared with about 2.5 per cent in the U. K., 7 per cent in Japan and over 16 per cent in the USA. The Commission has appointed a Committee to suggest measure to determine standards of teaching and research in different Universities in India.

In the first year of independence, the University population of India was nearly 2,40,000. In 1951-52, there were over 4,00,000 students in University classes and colleges, excluding medical and technological institutions. According to the latest estimates, this number is in the neighbourhood of 7,50,000. There has been a similar growth in numbers in professional and technical courses, though the increase there has not been quite so steep. The number of University institutions and colleges excluding technical, professional and special colleges, during the same period was 532 in 1946-47, 625 in 1951-52 and 746 in 1956. This has resulted in overcrowding in many of the colleges.

It may not be possible or even desirable to attempt to stop further increases completely. The present rate of increase of about 50,000 students annually on the rolls of University institutions, pursuing courses in arts, science and commerce, will need to be controlled in some measure due to limited resources. There are at present 33 Universities in India which are on the list of the Commission for payment of grants. The Commission has recommended model scales of pay for University teachers, the increased cost of upgrading the salaries of teachers in Central Universities being borne by the Commission, while for the State Universities the Commission is to bear 80 per cent of the increased costs. So far 14 State Universities have accepted the scales of pay recommended by the Commission.

The Commission has also given large grants to Universities for the improvement of laboratories, libraries, classroom accommodation and supply of scientific equipment.

The Second Five Year Plan provides a sum of Rs. 27 crore for the development of Universities, and on the basis of this allocation the Commission has drawn up a list of priorities, of which the largest proportion has been allocated for the construction of buildings, including hostels and staff quarters. The Commission is of the view that top priority should be given to the improvement of physical facilities in the Universities.

RE-APPRAISAL OF THE SECOND PLAN

The latest indications are that the implementation of Part "A" of the Plan might involve a total expenditure of the order of Rs. 4,650 crores as against Rs. 4,500 crores previously envisaged. There will be some shortfalls from the original targets laid down in respect of irrigation and power, while substantial reduction is expected in regard to some industries such as aluminium, structural fabrication, machinery manufacture, ferro manganese, dyestuffs, etc.

In its resumo of the Reappraisal of the Second Five Year Plan, the Planning Commission has stated that the implementation of Part A of the Plan might involve a total expenditure of the order of Rs. 4,650 crores as against Rs. 4,500 crores previously envisaged. The estimates of financial resources for the last two years of the Plan were shown at Rs. 1,804 crores and that for the five years at Rs. 4,260 crores. Between the minimum outlay target of Rs. 4,500 crores and the estimated resources, there was thus a gap of Rs. 240 crores. On an overall view, having regard to possible shortfalls in expenditure and changes in estimates under individual heads, the gap in financial resources may thus be of the order of Rs. 300 crores to Rs. 350 crores rather than Rs. 240 crores estimated earlier.

Food Imports and Plan : The reappraisal points out that as compared to the original estimate of Rs. 1,100 crores, the aggregate deficit over the Plan was likely to be about Rs. 1,700 crores. It may be mentioned here that one of the reasons for the increase in the foreign exchange gap is a rise in food imports. In 1956-57, food imports amounted to 2.4 million tons and for 1957-58, they came to 3.7 million tons. They are estimated to exceed 3.5 million tons in 1958-59. The total value of food imports in the first two years of the Second Plan was Rs. 259 crores, of which the amount covered under special agreement was Rs. 173 crores. Outstanding foreign exchange commitments stood at Rs. 990 crores at the end of September 1957 and at Rs. 888 crores at the end of March 1958. Of the latter, Rs. 547 crores were on Government account, Rs. 300 crores on private account and Rs. 41 crores for imports of iron and steel for use by both the public and the private sectors.

The Planning Commission holds that an increase of agricultural production by 2 to 2.5 per cent per annum, so far achieved, is not sufficient to support a large plan of economic development. In terms of production potential, the achievement in 1956-57 is assessed at

1.3 million tons and in 1957-58 at 2.3 million tons. It is expected that in 1958-59 the increase in production potential may be of the order of 3 million tons. Thus, over the years 1956-59, the total increase in production potential may be less than one-half of the revised target of the Plan period.

Shortfall in Power Production: The reduction in the total allocation for irrigatoin and power under the Second Plan from Rs 913 to Rs 832 crores is likely to affect the targets for irrigation as well as power. Having regard to the progress made so far and the funds likely to be available, it is anticipated that in place of the additional irrigation of 12 million acres envisaged in the Plan, large and medium projects are likely to provide additional irrigation of the order of 10.4 million acres. This modified target is still stated to be subject to adequate supplies of steel being made available. The impact of the shortage of foreign exchange on the targets for power is likely to be quite marked. In the Second Plan, the target of additional capacity was proposed at 3.5 million KW of which 2.9 million KW were to be installed in the public sector, 300,000 KW in the private sector and 300,000 KW in industrial plants providing for their own generating capacity.

More expenditure in the public sector: In the Second Plan, the total investment envisaged for large-scale industries in the public and private sectors together was of the order of Rs. 1,094 crores. In the public sector, the amount allocated was Rs. 524 crores in addition to Rs. 60 to 65 crores provided for the National Industrial Development Corporation, of which Rs. 35 crores were to be set apart for new basic and heavy industries. It is now stated that the latest estimates for the principal industrial projects in the public sector are placed at Rs. 882 crores, of which Rs. 15 crores are for schemes in the States.

It is generally expected that on present estimates of foreign exchange resources available, 70 to 75 per cent of the capacity targets mentioned in the Second Plan are likely to be achieved. Substantial shortfall are anticipated in respect of aluminium, ferro-manganese, caustic soda and dyestuffs. The target for cement has been reconsidered in the light of development since the commencement of the Plan. In the field of engineering industries there will be shortfalls in respect of structural fabrication and manufacture of sugar (except sugar industry), but the target for locomotives, wagons and bicycles will be achieved. Due to shortage of foreign exchange the targets for achieving self-sufficiency in several lines of manufacture are likely to suffer.

Investment in Private Sector: As in the public sector, investment requirements of the private sector had to be revised upwards. The Plan had envisaged a total investment of 685 crores for industries in the private sector, of which Rs. 535 crores represented new investment and Rs. 150 crores replacements, with foreign exchange expenditure being estimated at about Rs. 320 crores. The total investment required increased by about Rs. 155 crores and foreign exchange costs by about Rs. 120 crores. It is anticipated that on programmes which have already been initiated, having regard to the amounts of foreign exchange likely to be available, the investment on new industries over the five year period may be about Rs. 475 crores and on modernisation and replacement programmes about Rs. 100 crores, making a total of Rs. 575 crores as compared to Rs. 685 crores envisaged in the Plan.

On mineral development schemes, the provision now required is Rs. 110 crores in place of Rs. 85.5 crores indicated in the Planning Commission. In regard to transport and communications, the total outlay now proposed for transport and communications is Rs. 1,340 crores in place of 1,385 crores given in the Second Five Year Plan. The additional shipping tonnage likely to be acquired during the Plan for about 1,80,000 GRT as against the initial target of 3,90,000 GRT. A Shipping Development Fund has recently been set-up for financing the acquisition to the extent possible of additional tonnage in the remaining Plan period. The handling capacity of the ports is likely to be increased from 25 million tons to 33 million tons as envisaged in the Plan. The completion of the ports programme will be greatly helped by a loan of Rs. 20.67 crores from the World Bank, and this amount will be spent for the development of Madras and Calcutta ports. Some shortfall in the achievement in the road construction target of 20,000 miles is anticipated since as against Rs. 246 crores allocated in the Plan, the amount likely to be provided is Rs. 219 crores.

DANDAKARANYA DEVELOPMENT

The Government of India have decided to close down the displaced persons camps in West Bengal by July 1959, and roughly 35,000 out of the camp population of 45,000 families in this State are to be taken out to be either rehabilitated or provided with work pending their permanent rehabilitation. These 35,000 people will be rehabilitated in Dandakaranya which is under development. The number of persons in camps is a little under two lakhs, whereas there are thirty lakhs of displaced persons in West Bengal who are not in camps. Some of them are only partially rehabilitated and are anxious to be settled in Dandakaranya. It would therefore be necessary to provide for some of them in Dandakaranya. The first priority however would be for the displaced persons from camps in West Bengal.

The Dandakaranya area is thinly populated at present and it has tremendous natural resources and great development potential. The Government of India have decided to set-up a Rehabilitation Industries Corporation for rehabilitation of displaced persons in West Bengal. The Corporation will have an authorized working capital of Rs. 10 crores, out of which a sum of Rs. 5 crores will be made available to it as and when required from out of the allocations of the Ministry of Rehabilitation for the Second Plan period. It will have as its chairman a leading industrialist of Calcutta and will consist of four other industrialists of West Bengal to be selected by the Government in consultation with him, representatives of the Ministries of Rehabilitation and Commerce and Industry, and one representative of the West Bengal Government. The headquarters of the Corporation will be in Calcutta.

Of the 32 lakh East Pakistan displaced persons, about 2.5 lakhs are in camps, homes and infirmaries and about 30 lakhs are distributed all over the State in various townships, colonies and concentrations of displaced persons. An appreciable number is settled round about Calcutta. In the past, attempts to rehabilitate these persons have been made in various ways such as settlement on lands, trade loans, vocational and technical training, employment in Government offices and elsewhere and by the creation of employment through the setting up of industries of various types.

The Rehabilitation Industries Corporation will set up industries on its own as well as in partnership with private enterprise in areas where displaced persons are settled in large numbers. It may also undertake allied activities, such as running of training and apprenticeship institutions which will be specifically directed towards meeting the requirements of major industrial projects which are going to be set-up either in the public sector or in the private sector.

CHAGLA COMMISSION AND L. I. C. AFFAIRS

Mr. M. C. Chagla, the then Chief Justice of the Bombay High Court, was appointed in January 1958 as a Commission of Enquiry by the Government of India to enquire into and report transactions of the Life Insurance Corporation of India relating to the purchase of shares in the following companies, namely, Angelo Brothers Ltd., Calcutta; the British India Corporation Ltd., Kanpur, Smith Stainstreet & Co., Ltd., Calcutta; Jessop & Co., Ltd., Calcutta; Richardson and Gruddas, Ltd., Calcutta; and the Osler Electric Lamp Manufacturing Co., Ltd., Calcutta. The Commission of Enquiry was appointed enquire into the LIC purchases of Sri Haridas Mundhra's shares of these companies. Mr. Mundra was the Director of all those concerns.

Mr. Chagla held in his report that the transactions were made by the LIC as dictated by the Finance Ministry (that is, by its First Secretary, Mr. H. M. Patel) and executed by Mr Kamat, the ex-Chairman of the LIC. Both these officers belong to the ICS cadre. As regards the of the former Finance Minister, Mr. T. T Krishnamachari, the Commission finds that he was responsible, at least constitutionally for the L.I.C. transactions. The Commission came to the conclusion that clearly there was acquiescence on the part of the Finance Minister, Mr. Krishnamachari, in the role played by the principal Finince Secretary, Mr. H. M. Patel, in bringing about the transaction of June 24, 1957 It observes: "The lack of repudiation on the part of the Minister would go to support Mr. Patel's story that the Minister had approved of the transaction in Bombay on June 24." The Minister is constitutionally responsible for the acts of the Secretary.

The Commission observes: "In my opinion, in any case, it is clear that constitutionally the Minister is responsible for the action taken by his Secretary with regard to this transaction. It is clear that a Minister must take the responsiblity for actions done by his subordinates. He cannot take shelter behind them, nor can he disown their actions. The Minister has complete authority within his own sphere of actions. . . . As a necessary corollary, he must take full responsibility for the actions of his Secretary." The Minister will lay down the broad policy of his department and his subordinates will reflect that policy in their actions. "If any subordinate fails to do so, he may be punished, or dismissed, but however vicariously, the responsibility of his action be assumed by the Ministry."

Following these findings, Mr. Krishnamachari resigned from the Finance Ministership. A further Commission was appointed under chairmanship of Mr. Vivian Bose a former Judge of the Supreme Court, to enquire about the conduct and responsibility of Mr. Patel and Mr. Kamath. The Vivian Bose Commission found both these officers guilty of misconduct. Accordingly, these officers were chargesheeted. Their replies along with the charges have been forwarded to the Union Public Services Commission for their consideration and necessary recommendations in the matter.

INDIA IN WORLD AFFAIRS

INDIA'S FOREIGN POLICY

The year 1958 witnessed India's leading role in world affairs. As usual, she pursued a course of neutrality in international affairs, but at the same time, she made her best efforts to secure and maintain peace in international disputes. India opposed military occupation of Lebanon and Jordan by the army of the USA. India demanded the withdrawal of foreign troops in Lebanon and Jordan.

Rejecting a proposal that India should take the lead in forming a "third force" of like-mined countries, Mr. Nehru said that militarily these countries would not be able to make any difference. Even on the moral side, the moral pressure they would be able to exercise, would lessen if they banded together into a third force.

Over India's attitude to Tibet and China, Pandit Nehru said : "There had been internal trouble between Tibet and China. We had some trouble over this matter when Chiang Kai-shek controlled the destinies of China. The world community as well as the Government of India before or after independence had always acknowledged the suzerainty of China over Tibet. We came into the picture not in a particular good way when Colonel Younghusband at the beginning of the century, on behalf of the British power in this country, invaded Tibet and rather forcefully established positions there and gained certain rights for the then Government of India which was really an extension of the British Government.

Whether Tibet was free to act for herself or was functioning under the suzerainty of China, I do not quite understand how India had a right to put their platoons and companies of troops at odd places in Tibet on the plea of protecting their commerce and this and that. That was the position and naturally when we become independent, we did not wish to have any extra-territorial rights in Tibet."

Over the suggested meeting of the heads of Governments to resolve the Middle East crisis, in July, 1958 India signified her intention to join it. India replied to Soviet Premier Khrushchev's letter, saying: "We shall gladly offer our services to it (conference) in the cause of peace, if they are needed." Mr. Nehru reiterated India's firm conviction that armed intervention by a foreign power in any country was most undesirable and had urged the USA and Britain to withdraw their forces from the Lebanon and Jordan.

QUEMOY AND MATSU AND THE COMMUNIST CHINA.

India supported China's claim to Quemoy and Matsu as well as to Formosa. At a Press Conference on September 7, 1958, the Prime Minister of India declared that no country could tolerate an island 12 miles from its shores being used as a base for attack on it. India therefore felt that the offshore islands immediately, and later Formosa too, should belong to the People's Republic of China. But this must happen peacefully. This statement was made when China shelled these islands and the U.S.A. opposed it.

The Prime Minister declared that the U.N., which refused to recognise Communist China, was hardly an appropriate agency to solve the current Formosan crisis.

On September 19, 1958, the Steering Committee of the General Assembly rejected an Indian proposal to inscribe on the Assembly's agenda an item on Chinese representation in U.N. It adopted instead an American resolution for applying a "moratorium" procedure, barring any move to oust the Kuomintang Chinese and seat for the Communists, for the duration of the Assembly session.

The Quemoy and Matsu islands have since become the danger points in the conflict between Communist China and the U. S. in the Far East. The first major crisis over them occurred in 1955 when Peiping launched a series of raids and artillery attacks as an apparent prelude to invasion. The U. S. response was the Formosa Resolution of 1955, overwhelmingly passed by both Houses of Congress, which states :

"That the President of the United States be and hereby is authorised to employ the armed forces of the United States as he deems necessary for the specific purpose of securing Formosa (Taiwan) and the Pescadores (a group of islets off the coasts of Taiwan)"

In July 1958 signs began to accumulate that new trouble was brewing. On July 31, Soviet Premier Khrushchev journeyed to Peiping for a four-day conference with Chinese communist leader Mao-Tse-Tung. In the weeks immediately following the Peiping conference, the evidence pointed to a Mao-Khrushchev decision on new military moves in Taiwan strait. Stepped up communist artillery bombardment of Quemoy culminated on August 23 in the heaviest shelling in the island's history. The arracks produced warning from Secretary of State, John Foster Dulles and President Eisenhower, but the warnings had no marked affect of communist military activity in the Strait. The last week of July, 1958, began with concentrated effort by the communists to blockade the 100,000 man Quemoy garrison with fields of torpedo boats. The situation has eased a little at the moment.

INDIA AND DISARMAMENT

India and Yogoslavia on 3rd November, 1958 brought to a happy end the three week acrimonious debate on the vext question of disarmament in the Political Committee of the General Assembly by securing the Committee's vote turning over the diarmament problem to a Commission made up of all the 81 members of the United Nations. The Indo-Yugoslav compromise resolution, passed on the problem to the 81-member Commission for the next year on an *ad hoc* basis. Under the resolution, the Secretary General, Mr. Dag Hammarskjoeld, will call the Commission into session "after consultation with the members. This is expected to be early in 1959.

Under the Indo-Yugoslav resolution, which now have to be endorsed by the Assembly, the 81-member Commission would have to submit to the 11-member Security Council and to the General Assembly "at a special session if necessary, constructive proposals and recommendations in the field of disarmament."

The text of Indo-Yugoslav revised resolution reads as follows :

"The General Assembly, having regard to the universal desire for the establishment of genuinely peaceful conditions in the world and therefore for taking steps to avoid the destruction that would result from a major armed conflict, reaffirming the responsibility of the United Nations for seeking a solution of the disarmament problem, expressing its determination that all members of the United Nations should be in a position to contribute to a solution of this problem on a continuing basis.—

1. Decides that the Disarmament Commission shall, for 1959, on an *ad hoc* basis, be composed of all the members of the United Nations :
2. Transmit to the Disarmament Commission all the documents, proposals and records of discussion relating to disarmament at the 13th session of the General Assembly ;
3. Requests the Disarmament Commission to convene as appropriate and to submit to the Security Council and the General Assembly at a special session, if necessary, constructive proposals, and recommendations in the field of disarmament.

INDIA AND SOUTH AFRICA

The 81-member U. N. General Assembly endorsed on December 10, 1958 by 69 votes to none, with 10 abstentions, its Special Political Committee's resolution appealing to South Africa to negotiate with India and Pakistan on the treatment of people of Indian and Pakistani origin in the Union.

The Indian representative said that the Government of India felt extremely grateful to the Assembly for the support given to the problem in the past and to those who made up on that day the aggregate of 69 votes. The absence of South Africa was regretted by India, as the presence of South Africa was necessary for the purpose of fulfilling the Charter. India intended to approach the South African Government again, although she had no diplmatic relations with her for negotiations on the problem without any commitment regarding the juridicial position and at the same time with no intention of throwing the U. N. overboard in the matter.

INDIA AND THE CYPRUS ISSUE

During the discussion over the Cyprus problem at the Political Committee of the United Nations, Mr. Krishna Menon, India's representative declared on December 2, 1958, that India thought that Cyprus belonged to the Cypriot people. He reviewed past debates on the Cyprus question in the Committee and said that in 1955 a new factor entered the picture. In that year, three parties emerged, namely, Britain, Greece and Turkey in the Cyrpus problem. Formerly, there were two parties—the British and the Greeks.

Britain, he said, had declared there were two basic principles of British policy—doing away with violence, and partnership. With the first of these policies, India was in complete agreement. Everything should be done to bring about peaceful conditions. India referred to the statement by the British delegate that the ideal of partnership was one of which Britain had good reasons to be proud. But partnership, as in the Commonwealth, is not what is involved here.

India declared that she did not want any confusion or doubt thrown on the free character of the Commonwealth association. India regards it as entirely inappropriate to regard the proposed sharing of imperial power between Turkey and Greece as analogous to Commonwealth relations. The British plan, India observed, could not come into effect without two things—Turks and Greece must elect someone to take part in the legislature, and the Governor had to be assisted by two Governments.

Unless the two independent nations desired to be partners, the plan could not come into operation. Mr. Menon said there was the possibility that partition might become inevitable, but it would be wise statesmanship not to lay the foundation for this. It was not a step forward to have independent nations sitting around at a conference without the people who were the main parties in the problem.

On December 5, General Assembly adopted a resolution on Cyprus expressing confidence that continued efforts will be made by the parties to reach a peaceful, democratic and just solution in accordance with the U. N. Charter.

INDIA PLEADS FOR CHINA

India has been pleading for giving representation to China (mainland) to the UNO. On September 19, 1958 the Steering Committee of the General Assembly rejected an Indian proposal to inscribe on the Assembly's agenda an item on Chinese representation. It adopted instead an American resolution for applying moratorium procedure, barring any move to oust the Kuomintang Chinese and seat the communists, for the duration of of the Assembly session. India said that the Assembly in refusing so far to discuss the China issue had disregarded its Charter obligations, of making itself a centre for harmonsing relations, an instrument of peace and of the universal character of the organisation.

On Septmber 23, the General Assembly endorsed its Steering Committee's rejection of an Indian proposal for full-scale study of Chinese representation in the United Nations. The Assembly also rejected a further amendment of the seven States to delete the Committee's recommendation that a moratorium procedure, barring any move to oust the Kuomintang Chinese and seat the communist, be in force for the duration of the 13th session.

INDIANS IN CEYLON

It is a long standing dispute between India and Ceylon over the issue of granting of Ceylonese citizenship rights to Indians domiciled there. The Government of Ceylon is not agreeable to grant such rights to all Indians living and domicled in that country. Recently Ceylon Government had decided to give citizenship rights to about one and a half lakh of plantation population in all, and that the next step would be to find means of encouraging the gradual return to India of the remaining Indians.

The plantation population in Ceylon of Indian origin must be distinguished from two other categories of persons in Ceylon with whom they are sometimes confused. The first category are those known as *Ceylon Tamils.* They speak Tamil but they have been Ceylon nationals for hundreds of years and they are part of Ceylon in the same way as any other nationals of Ceylon. Then there are *Indian Nationals* who have gone to Ceylon for professional or business reasons. India is responsible for these India nationals and India is eager to look after their interests as best as she can.

Hundreds of these Indian nationals, who had been to Ceylon, have returned to India or been sent back to India by the Government of Ceylon. 48,303 persons came back from the beginning of 1954 to the end of 1957. The Government of Ceylon have the right to decide whether, and for how long, they would allow the nationals of India or any other country to remain in Ceylon. These Indian nationals can remain in Ceylon only for the period of the visas given to them by the Government of Ceylon.

The *plantation population of Indian origin* constitutes a third category of Ceylon residents. They are about nine lakhs. They have been in Ceylon as plantation labourus for a long time. Most of them were born there. The so-called Indo-Ceylon problem is the question of citizenship rights for this estate labour which has contributed greatly to Ceylon's prosperity and which according to our views, is entitled to Ceylon citizenship. It is about these persons resident in Ceylon that negotiations have taken place between the Governments of India and Ceylon. An agreement was signed between the two countries in January 1954 and further elaborated in October 1954. Since then, there have been differences of opinion between the two Governments over the interpretation of certain clauses of the Agreement and further discussions have been held from time to time. They wish to be Ceylon citizens as evidenced by the fact that almost all of them applied for Ceylon citizenship.

The Government of Ceylon issues periodical statistics on the progress of registration of these persons as Ceylon citizens. According to the latest figures received, out of a total of 2,37,034 applications covering an estimated 8,29,619 persons, filled by persons of Indian origin for Ceylon citizenship, only 24,509 applications covering 96,923 persons had been accepted until the end of August, 1958, 1,96,063 applications covering 6,96,252 persons had been rejected, 7,397 applications are reported to have been withdrawn and 9,020 applications are still pending.

The persons who have been refused Ceylon citizenship have been rendered "Stateless." They cannot become Indians unless they are registered as such. They could only be registered if they apply for Indian citizenship of their own free will.

India's stand continues to be that these people have, by decades of their residence in Ceylon and their contributions to Ceylon's development, earned the right to continue their way of life in the country of their adoption. Those of them, who wish to become Indian citizens of their own free will, can apply to our High Commissioner in Ceylon for registration and, if they qualify under our citizenship law, our High Commissioner will register them as such. India has made this position clear in all discussions with the Ceylon authorities. There is thus a measure of agreement in the outlook of the two countries.

HAGUE CONVENTION ON CULTURAL PROPERTY

The Government of India have ratified the convention for the protection of cultural property in the event of armed conflict, which was drawn up at the Hague in May 1954. The convention and the protocol have come into force in respect of India with effect from September 16, 1958. The Hague Convention, which met under the auspices of the UNESCO, seeks to improve the provisions of the earlier conventions. It aims at protecting all cultural property in the event of armed conflict. It is based on the faith that cultural property, to whatever nation it might belong, is an integral part of the heritage of humanity.

Under the provisions, signatories to the Convention are required to respect cultural property and protect it from theft and vandalism in their own as well as in occupied territories belonging to another signatory. During peace time, the parties are obliged to develop services and agencies for the protection of cultural property in times of emergency. Military regulations are also to be amended and instruction provided so as to ensure the observance of the convention and to foster among members of the armed forces respect for the culture and cultural property of all peoples.

Cultural property has been defined to include movable or immovable property of importance to the cultural heritage of people, archaeological sites, groups of buildings, books, scientific collections, archives, etc. Museums and libraries are also included in this category.

INDIA'S ACCESSION TO BRUSSELS CONVENTION

India has acceded to the Brussels text of the Convention of the International Union for the protection of Literary and Artistic works, known as the Berne Convention, was announced on September 26, 1958. The Instrument of Accession, signed by the President of India was deposited with the Government of the Swiss Confederation on September 12, 1958. The accession took effect from October 21, 1958.

The Berne Convention which was the first international convention on Copyright was adopted at Berne on September 9, 1886, and was completed in Paris in 1896. It was revised subsequently at Berlin in 1908, at Rome in 1928 and again at Brussels in 1948. India has been a member of the Berne Union from its inception. Though a signatory to the Brussels text of 1948, India could not accede thereto as the Indian law on copyright did not conform to the Brussels text fully. The Copyright Act, 1957, which came into force on January 21, 1958 has now enabled India to accede to the Brussels text.

Some of the new features are ; cinematographic works are given the same treatment as literary works. The author is given the sole right to make a collection of political speeches and speeches delivered in judicial proceedings.

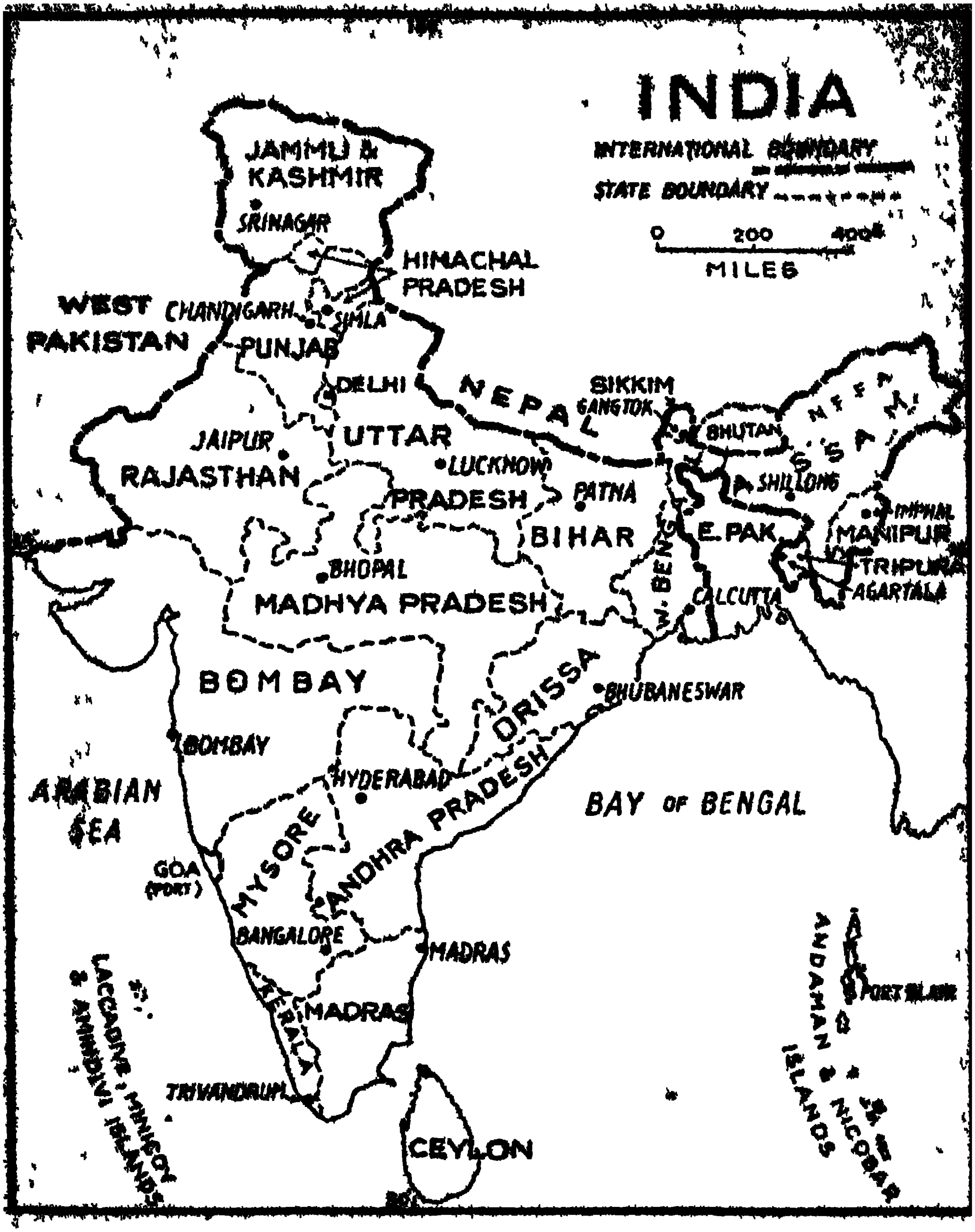
The minimum term of protection granted by the Convention is the life of the author and fifty years after his death except for cinematographic and photographic works. In the case of a work of joint authorship the term of protection is to be calculated from the date of the death of the last surviving authors. The convention confers the right to make short quotation from newspaper articles and periodicals and to include them in press summaries by appropriate acknowledgement of the source. The author is conceded the exclusive right to authorize the public performance and presentation and broadcasting of his works subject to certain conditions.

Unsettled dispute between Government of the Berne countries are now to be referred to the International Court of Justice.

THE ASIAN-AFRICAN CONFERENCE

A conference attended by representatives from forty-four countries of Asia and Africa was held in Cairo December 26, 1957 to January 1, 1958. The conference was a non-official one in the sense that the delegates did not represent their respective governments. Nevertheless, it marked a great step towards Asian-African solidairy and understanding. The conference, although non-official in character, was supported by the respective governments. The conference endorsed India's stand on Goa, Indonesia's stand on West Irian and China's stand on Formosa. Another notable event of the conference was the declaration by the representative from the Soviet Union that the Soviet Government was prepared to offer economic aid without any strings to any country in Asia and Africa.

The Bandung principles were endorsed by the conference, holding that these principles provided a basis of solidarity to the peoples of Asia and Africa. The Bandung principles were therefore not a sudden phenomenon. It was the natural result of a moral development which led African and Asian peoples to awaken to deal with problems affecting their existence and to shoulder the responsibilities of their liberation.


INDIA
INTERNATIONAL BOUNDARY
STATE BOUNDARY
0 200 400
MILES
JAMMU & KASHMIR
SRINAGAR
HIMACHAL PRADESH
WEST PAKISTAN
CHANDIGARH
SIMLA
PUNJAB
DELHI
NEPAL
SIKKIM
GANGTOK
BHUTAN
N.E.F.A.
ASSAM
SHILLONG
IMPHAL
MANIPUR
TRIPURA
AGARTALA
JAIPUR
RAJASTHAN
UTTAR PRADESH
LUCKNOW
PATNA
BIHAR
E. PAK.
W. BENGAL
CALCUTTA
BHOPAL
MADHYA PRADESH
BOMBAY
ORISSA
BHUBANESWAR
BOMBAY
HYDERABAD
ANDHRA PRADESH
ARABIAN SEA
BAY OF BENGAL
GOA (PORT)
MYSORE
BANGALORE
MADRAS
MADRAS
KERALA
TRIVANDRUM
LACCADIVE, MINICOY & AMINDIVI ISLANDS
ANDAMAN & NICOBAR ISLANDS
PORT BLAIR
CEYLON

Map of India

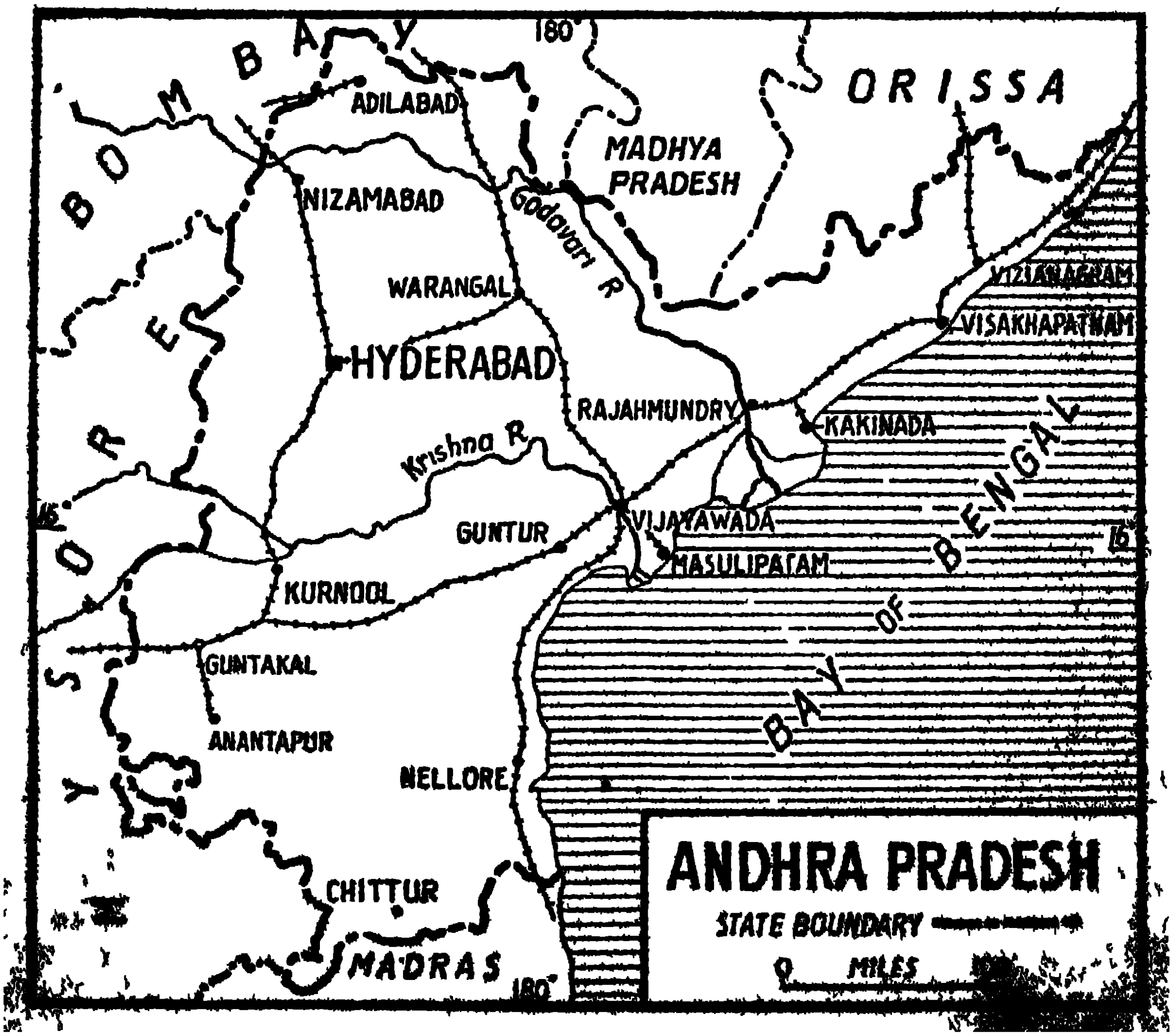
STATES IN INDIA

ANDHRA PRADESH

Capital ..	Hyderabad
Principal Language ..	Telugu
Population ..	3,12,60,133
Area (sq. m.) ..	105,700
Literacy ..	13·12%
Density of Pop. (per sq. m.) ..	296
Universities ..	Osmania, Andhra, Venkateswara

Big Cities:

Vijayawada	162,198
Guntur	125,255
Visakhapatnam ..	108,042
Hyderabad	1,218,583
Warangal	133,130
Rajamundry	105,276
Kakinada	99,951
Eluru	87,213
Nellore . ..	81,480
Masulipatam . ..	77,953
Vizianagram . ..	67,104



Covering twenty districts in combined Andhra and Telangana, Andhra Pradesh possesses the fertile deltas of the Godavari and the Krishna and the rich Tungabhadra basin of black soils.

Andhra Pradesh is the fifth largest in area and fourth largest in population in the reorganised States of India. It is spread over an area of 1,06,041 sq. miles and comprising 19 districts. There are 293 towns and cities and 26,450 villages in the State

Forests—Forests in Andhra occupy 19 p c of the total area, which is higher than the Union of India (15 p c). The forests which covers the inaccessible parts of the Eastern Ghats, contain useful species of timber. There are huge forest areas in Srikakulam, Visakhapatnam and Godavari and Kurnool districts.

River Resources—The State is drained by the *Godavari, Krishna* and *Pennar* and their tributaries, and their waters have been harnessed for irrigation to some extent The Godavari flows for 225 miles through the State before it falls into Bay of Bengal. The remaining two-thirds depends on rain, which is both inadequate and undependable

Cottage Industries—Andhra Pradesh is well-known for its handicrafts. The silver filigree articles of Karimnagar, the exquisite toys of Nirmal, Kondapalli and Tirupathi, bidriware and himru of Hyderabad, the carpets of Warangal and Eluru, the attractive chrochet lace goods of Narsapur and the excellent handloom textiles are the foremost. Handicrafts of Andhra Pradesh have earned world-wide reputation.

Industry—Tobacco, sugarcane, groundnut, castor seed, cotton and jute are produced in large quantities; Kothagudem and Tandur are coal centres, while Godavari Delta is expected to yield huge coal deposits. The delta area of Krishna and Godavari contain lignite deposits, while uranium is found in Nellore district. Iron and manganese are strewn over various regions, while the Nellore district abounds in mica mines Royalaseema and Telangana are well known for the mineral wealth including gold and diamond. Andhra Pradesh produces large quantities of tobacco, sugarcane, groundnut, castor seed, cotton, jute, hides and skins—all of which are useful for industrial processing and utilisation. Andhra holds the All-India record for tobacco crop and is the leading earner of our foreign exchange.

There are 12 textile mills in Andhra Pradesh, three in Telangana area and nine in the Andhra State. There are two paper mills in Andhra Pradesh, one is Sirur Paper Mills and the other is Andhra Paper Mills at Rajahmundry, which is a Government concern. There are ten sugar factories now working in Andhra Pradesh. The factory at Bodhan is one of the biggest sugar mills in Asia. Andhra Pradesh produces large quantities of hides and skins and tanned staff. The only major ship-building yard in India is in Visakhapatnam. The Caltex Oil Refinery is now situated at Visakhapatnam. Sericulture is a growing industry. The Srisilk Ltd, Sirpur, is a pioneer concern producing artificial silk at the rate of about 50,000 yards [illegible] State is an important tobacco-producing area. Guntur and [illegible] main centres.

The Pragatools Corporation is the only machine tool factory in the State. There is a Government Ceramic Factory at Gudur, which manufactures only crockery and sanitary ware so far. The Allwyn Metal Works is an important industry with capacity to manufacture railway wagons. There are two cement factories, Andhra Cement, Bezwada and Krishna Cement with an installed capacity of 1·89 lakh tons. Hyderabad Asbestos Cement Products Ltd produces nearly 70 tons asbestos sheets per day.

Minerals—The mineral wealth of Andhra Pradesh is improving. Coal, iron ore, manganese and mica are in abundance. Coal output per annum is 1·5 million tons, nearly 4 p c. of the country's entire production. After Bihar, Andhra is the largest producer of mica. 95 per cent of India's barytes is from Andhra. Other minerals are asbestos and chromite. It is the principal supplier of coal to South India, while it contributes half of the output of asbestos in India.

Ports of Andhra—The Andhra State has a long coast-line and a number of ports. Besides the major port of Visakhapatnam, there are minor ports at Kakinada and Masulipatam and the small ports at Kalingapatnam, Bhimunipatam, Vadarevu, Narsapur and Kandaleru. Ports like Kakinada and Masulipatam are favourably situated in having road, rail and canal communications.

Districts of Andhra Pradesh—It consists of 19 districts. The names of the districts are :—Srikakulam, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Nellore, Chittoor, Cuddapah, Anantapur, Kurnool, Hyderabad, Mahabubnagar, Adilabad, Nizamabad, Medak, Karimnagar, Warangal and Nalgonda.

ASSAM

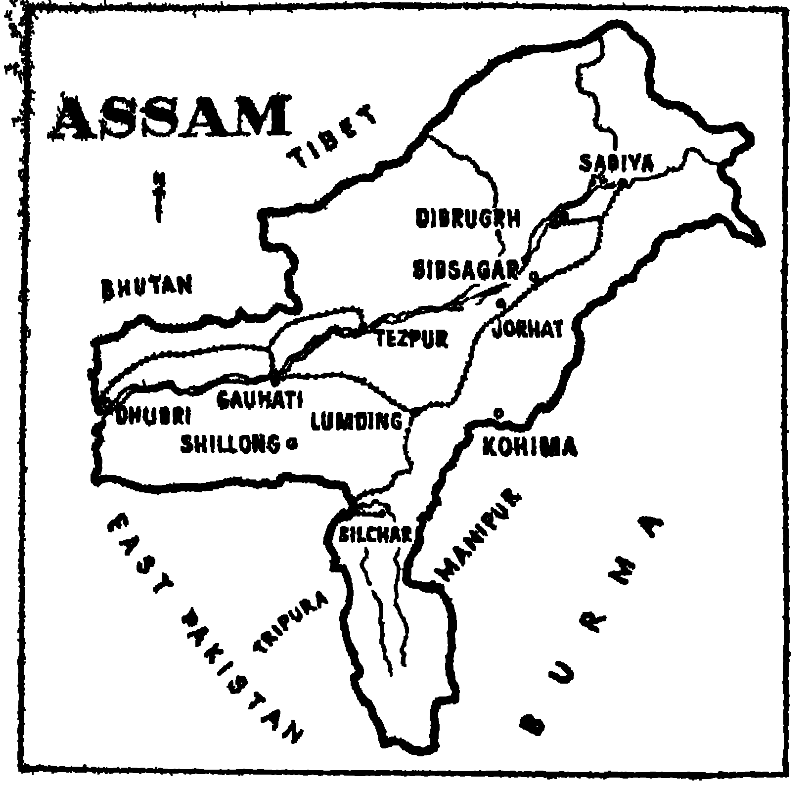
Capital	.. Shillong
Population	.. 90,43,707
Area (sq. m.)	.. 85,062 (including NEFA).
Principal Languages	.. Assamese & Bengali
Literacy	.. 18·07 p.c.
Density of Pop.	.. 17 per sq. m.
University	.. Gauhati

Big Towns

Shillong	 53,756
Gauhati	 43,615
Dibrugarh	 37,991
Silchar	 34,059
Nowgong	 28,257

This extreme north-eastern frontier State is almost bottled up between Bhutan and Tibet in the north, Burma on the east and East Pakistan on the west, areas of Manipur in the east and Cooch Bihar and Tripura on the west thrown in, except for a narrow passage bordering along and through Cooch Bihar. The hills that skirt the State are the Garo, the United Khasi-Jaintia, the Mikir, the North Cachar, the Lushai (now officially known as Mizo) and the Naga Hills. The 25 Khasi Hill States were merged with Assam on 26th January, 1950 to be known as Khasi-Jaintia

Hill district and have added 6,027 sq. miles area. With the Khasi States, Assam continues to be to be governed through the Governor of Assam Assam occupies strategically important position after partition of India Assam is no longer a mere part of India, but she has become the main frontier, the veritable sentinnel of the Indian Union This State has the largest number of tribal people of the Union, constituting about 31 p c of the State's population There are two strategic frontier regions in Assam which are both, though under the Governor of Assam, are excluded from the administrative control of Assam Government The one is *North East Frontier Agency* (NEFA) and other is *Naga Hills Tuensang Area* These two regions are ruled by the Governor of Assam as the Agent of the President of India



Criss crossed and skirted by hill ranges and forests, with the lower Himalayan ranges overlooking in the north, the territory has an abundant rainfall Except for the Western Ghats where the average rainfall is about the same, Assam has the highest rainfall in the whole of India The averages in different parts of the State vary from about 43 inches in the Nawgong plains to about 500 inches at Cherrapunji This makes agriculture and plantation comparatively easy and worthwhile for the people and planters, rice and tea being the most important crops In tea particularly, she holds about half the acreage of the Indian Union Sugarcane, cotton, jute, tobacco, rape and mustard and silk are also grown in small quantities

Forests occupy about 40 p c of the area of the State but all this area is not permanently dedicated to forestry Only about 12 p c is so reserved, the bulk of the remainder being subjected to shifting cultivation in the hill districts by the tribal people The forests of Assam have been in recent years sustaining a production of about 200,000 plywood chest annually for tea. The forests also produce very large quantities of bamboo for paper production. Assam is the biggest producer of cane in India There are about 70 or more varieties of timber, of which 10 or 12 varieties are now generally used.

Minerals—The distinction of being the only place in India where mineral oil has so far been produced, belongs to Assam. To Digboi is now added the new oilfield at Nahorkatiya. There occur other minerals in Assam, the important among them being coal, limestone, sillimanite, ceramic materials, etc

Hydro-Electric Power—Assam is deficient in power development, but first big power development known as *Umtru Hydro Electric Project* came into operation in 1957 under Colombo Plan with the monetary assistance of Canada, which is expected to produce 7,500 Kilowatt for the purpose of supplying electrical power to the city of Gauhati The Umtru Power House is at a distance of about 19 miles south of Gauhati on the southern slopes of the United Khasi and Jaintia Hills

Climate—The climate of Assam is marked by coolness and extreme humidity. The heavy and long continued rain keeps the temperature comparatively moderate Assam enjoys an unusually long and bracing cold weather The spell of hot weather is very short

Assam's Fauna—Assam is fortunate in possessing probably the richest fauna of any part of Asia and outside Africa , there is no part of the world with so many varieties of animals, birds, reptiles and insects The most important animal from the point of view of its rarity and interest is the great Indian single horned rhinoceros, of which Assam has by far the greatest number, Assam rhino has the distinction of being the largest rhino in existence today Other animals such as the elephant, wild buffalo, bison, swamp deer, rare birds like hornbill, king cobra, and other kinds of reptiles also abound. Bengal tigers and leopards are there too The largest single population of elephants, outside possibly Burma is found in Assam There are in Assam today six wild life sanctuaries, such as (1) *Pabha Sanctuary* of 20 sq miles known as Milory Buffalo Sanctuary situated in the North Lakhimpur. (2) *Sonairupa Sanctuary* of 90 sq miles in Darrang district containing wild elephant, gaur, sambur, bison and rhino (3) *Orang Reserve* of 24 sq miles in Darrang district on the north bank of Brahmaputra containing some rhinos (4) *Lookhowa Reserve* of 26 sq. miles in Nowgong district containing rhinos and a few hog deer (5) *Khaziranga Reserve* of 166 sq miles on the south bank of Brahmaputra in Sibsagar and Morgong districts containing largest number of great Indian one-horned rhinoceros It also contains wild buffalo, swamp deer, barking deer, wild pig, partridge and many species of water birds (6) *Manas or North Kamrup Sanctuary* of 105 sq. miles containing buffalo, hog deer, pelicans, wild elephant, gaur, rhino, barking deer, sambur etc. This sanctuary is at appropriate seasons, an angler's paradise, masheer being the principal game fish.

Languages—According to the 1951 census 40 per cent of the people speak Assamese language and about 24 per cent Bengali. The other languages spoken in Assam are Hindi, Oriya, Mundari, Nepali and great variety of languages and dialects known as Tibeto-Burman languages. The number of people speaking main languages are: Assamese—4,972,493; Bengali—1,719,155; Hindi—335,668

Cottage Industries—Second only to agriculture, weaving and sericulture industry are by far the largest and oldest single main, as well as subsidiary, cottage industries in Assam. Among Assam's cottage industries, the most important are sericulture and handloom weaving. About 1·2 million people work in these as a subsidiary occupation.

Assam is famous for her non-mulberry silks of Eri and Muga. She produces 65 p.c. of the entire quantity of non-mulberry silk produced in India. The golden colour muga yarn, besides being used for fabric, is also used for embroidery work and fishing lines. The creamy colour of Eri fabric is mainly used as wrappers, suitings and shirtings. Among other cottage industries are ivory, bamboo and cane work, bell metal work and bee-keeping.

Agriculture—The economic pattern of Assam is agricultural, out of the total population, an overwhelming majority or 72% depend on agriculture. The main agricultural crops of the State are—rice, rape, mustard, sugarcane, potato, pulses, maize and oranges. The main cash crops are—tea, jute, cotton and tobacco. *Jhum* cultivation is carried on in the hill districts. The trees and shrubs on hill slopes selected every year are cut down and burnt and then crops grown on the bald patches. The area is then abandoned for a number of years so that trees may grow again and fertility recouped.

Industries—The main industry of Assam is tea industry. It occupies not only an important place in the economy of the State and the country but also a valuable earner of foreign exchange. There are nearly 965 tea gardens in Assam alone. The production of tea is of the order of 350 to 360 million lb., out of the country's total production of 600-650 million lb. Assam has made vast stride in jute cultivation. At present this industry accounts for 34 p.c. of the total jute production in the country. The distinction of being the only place where oil is produced in India belongs to Assam. The Digboi field yields about 8 p.c. of the country's requirements of crude oil. The new Nahorkatiya field gives much promise to produce about half the country's requirements. Coal is worked in Ledo, Nazeia and Cherrapunji, but the output is not high. The other industries of Assam are match making, plywood manufacturing, rice and oil milling.

The Districts of Assam (with headquarters in brackets)—Goalpara (Dhubri), Kamrup (Gauhati), Darrang (Tezpur), Nowgong (Nowgong), Sibsagar (Jorhat), Lakhimpur (Dibrugarh), Cachar (Silchar), Garo Hills (Tura), United Khasi Jaintia Hills (Shillong), United Mikir & North Cachar Hills (Diphu) and Mizo Hills District (Aijal).

NORTH-EAST FRONTIER AGENCY (NEFA)

Consisting of an area of 32,969 square miles, this Agency is situated on the north-east corner of India bordering Burma, China, Tibet and

Bhutan. The population consists of about 600,000 tribesmen divided into some 40 tribal groups of Indo Mongoloid origin

Constitutionally, it is part of Assam and is administered by the Governor of Assam acting as the agent of the President The Governor is assisted by an Adviser in Shillong But in recognition of its special features, the governance of this area is the responsibility of the Central Government The whose of NEFA is divided into the following five Administrative Divisions, each under a political officer—Siang Frontier Division, Kameng Frontier Division, Lohit Frontier Division, Subansiri Frontier Division, Tirap Frontier Division

The people are divided into a number of tribes, sub tribes and class which have maintained independent and isolated existence over many years Ethnically these people belong to two main groups—Tibeto-Mongolian and Thai Chinese All NEFA tribes other than Khamtis and akin belonging to the Thai ethnic group, speak the dialects of the Tibeto-Burman family tribes Broadly, the tribes of the Tibeto-Burman group belong to two sub groups—Aka Abor and Kachin The headquarters of the Agency is Shillong

The leading tribes are Monpas, Tagins, Gallongs, Op tanis, Monbas, Palibos, Ramos Bokars, Boris, Mishmis All these tribes with very rare exception have Councils of Elders which exercise temporal authority Most of the communities inhabiting the Agency owe allegiance to animistic or quasi-animistic tribal faiths

NAGA HILLS TUENSANG AREA

Area—6,236 sq m *Headquarters*—Kohima

A new Centrally administered unit known as Naga Hills Tuensang Area taken out of North East Frontier Agency, has been formed on 1st December, 1957 to satisfy the demand of the Naga people for their own Nagaland It is administered by the Ministery of External Affairs The new area is administered by the President through the Governor of Assam acting as his Agent, while the Commissioner is the direct head of the area This area remains part of Assam This area is divided into three districts Naga Hills, Mokokchung and Tuensang Tuensang has an area of about 2,000 sq miles and a population estimated at slightly about one lakh and a half The main tribes inhabiting this Division are Chang, Sema, Konyak, Phom, Sagtam who speak different languages and have different social customs The headquarters is Kohima

The principal Naga tribes are Angamis, Aos, Semas and Lhotos. After them come Kaccha Nagas and Rengamas

WEST BENGAL

Capital	.. Calcutta	*Big Cities.*		
Population	.. 26,302,385	Calcutta (incld suburbs)		33,448,39
Area (sq m.)	. 33,885	Howrah	..	433,630
Literacy	. 24.02 p.c.	Tollygunj	..	149,817
Density of Pop	775 per sq mi	Bhatpara		134,916
Language	Bengali	Kharagpur		129,636
Universities	.. Calcutta, Visva Bharati, Jadavpur	Garden Reach		109,160
		Behala		104,055
		Berhampur		55,613

The old Bengal Presidency included practically all Northern and Central India, but subsequently Bengal province consisted of part of Bengal proper with Bihar, Orissa and Chotanagpur. In 1905 the Province was divided but in 1911 it was reunited. This Province of Bengal ceased to exist in 1947 when it was again divided, West Bengal forming part of India and East Bengal part of Pakistan. State of Cooch Behar was merged with West Bengal on January 1, 1950 and also Chandernagore, on October 2, 1954.

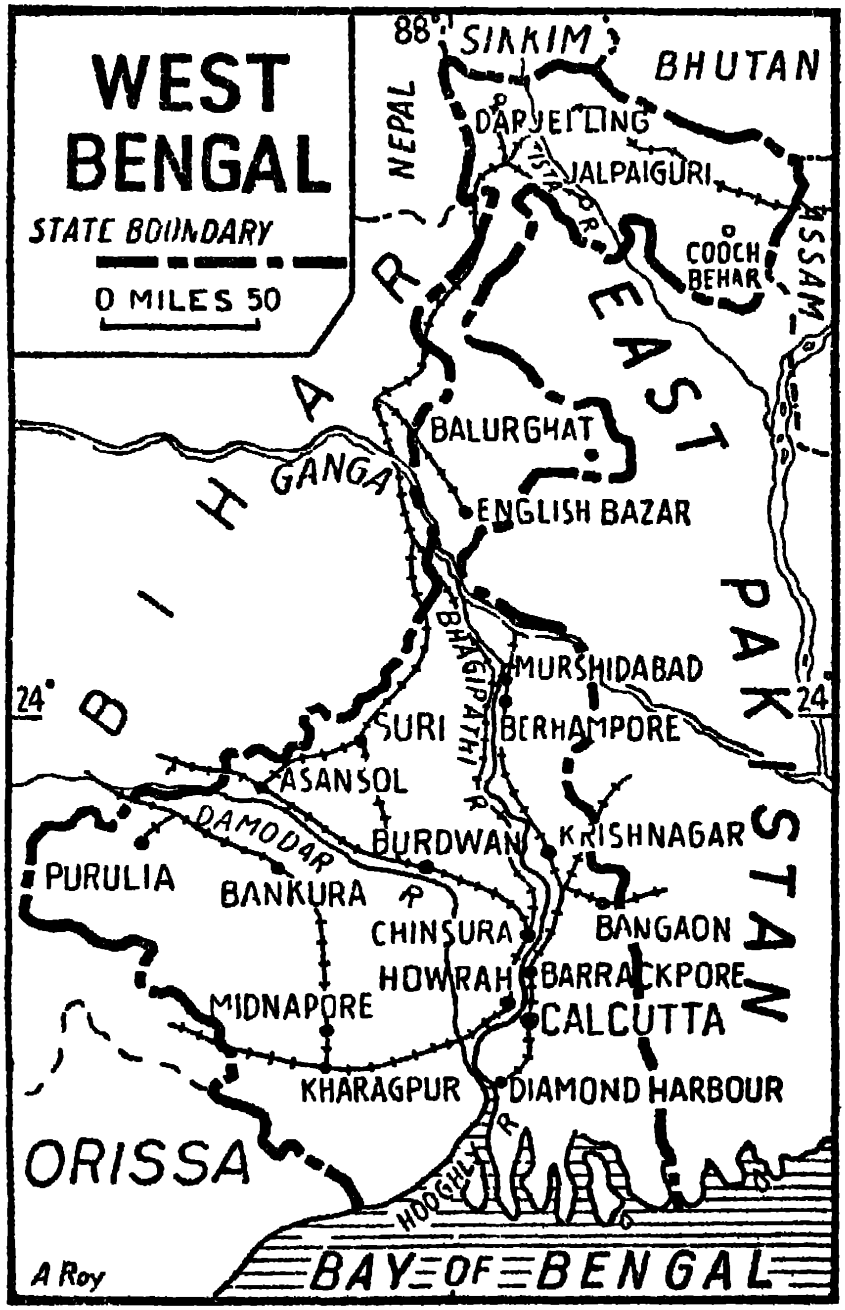
West Bengal, a truncated and dismembered State as the result of Partition, has emerged in 1956 under the States Reorganisation Act of 1956, is a somewhat bigger State with an essential link between the two hitherto isolated northern and southern segments. The much desired link between Darjeeling and the rest of the State has been forged from Purnea of Bihar 700 sq miles with a total population of 780 000 and Purulia sub-division of Manbhum district of Bihar, excluding Chas and Chandil thanas, and Pitamba police station of Barabhum Thana with a total of 2,140 sq miles and population of 1.12 million have come to West Bengal. The area from Purnea forms part of Darjeeling district, while that of from Manbhum district constitutes a separate district known as Purulia district.

This is one of the most densely populated states of the Indian Union, with 806 persons per sq mile as per 1951 census. The density is highest in Calcutta (78,000 people per sq mile) and lowest in Darjeeling district. It has a tropical climate, rainfall averaging from about 69 inches in the plains to above 120 inches in the hill.

Bhagirathi is the only channel left to West Bengal, which receives waters from the Ganga. This channel is of vital importance not only to the State of West Bengal but also to the whole of India, as on its bank stands Calcutta, the largest port of India.

Agriculture—In agriculture which gives occupation to the majority of the people, she has the third largest area under rice in the Union, the second in tea and the first in jute, some amount of gram, barley, linseed, mustard, and rape, sugarcane, maize, cotton tobacco and other crops are also grown here. Of the total cropped area, 88 p.c. is utilised for growing rice. After rice, jute is the most important crop and accounts for 10 p.c. of total cropped area of Bengal. Tea plantations cover an area of 170,764 acres and it lies in the districts of Jalpaiguri and Darjeeling. The chief products of the State are rice, oilseeds, sugarcane, sugar, tobacco, jute, silk, tea and coal

Forest—Forest area of West Bengal is 5,256 sq miles, which lies chiefly in the districts of Darjeeling, Cooch Bihar, 24 Parganas (Sundarbans), Midnapore, Nadia, Murshidabad, Bankura, Hooghly, Burdwan, Birbhum, Malda and West Dinajpur The principal products are timber, firewood and charcoal



Industry—West Bengal leads over all others in the field of industry. Twenty-three per cent of all factories registered in the Indian Union are located in West Bengal At present West Bengal has 90 jute mills, employing over 310,000 people. The capital invested in the trade is about Rs. 48

crores. Bengal accounts for one-fourth of all India's coal production. There are 32 cotton mills in the State located within 16 miles of Calcutta. West Bengal has also the largest number of paper mills of any State in India. West Bengal has the largest engineering industry in India, representing approximately 15 p c of the total all India output

Easily the most important of the new industrial enterprises set up in West Bengal is the motor factory of Hindustan Motors, Uttarpara, Aluminium industry also holds a leading place in West Bengal Both the rolling mills of the country are located in the State Indian Aluminium Company's Works at Belur and the Aluminium Corporation's plant in Jaykaynagar near Asansol With the transfer of Purulia district of Manbhum and a small portion of Purnea, West Bengal gains lac processing centres at Jhalda and Balarampur, the monopoly of tasser silk around Raghunathpur and jute fields in Purnea The two of the big steel plants in India are located in West Bengal, as also the coke plant of the West Bengal Government The Durgapur Steel plant, a major industrial project in West Bengal, will be able to produce 7 0,000 tons of steel by the end of 1960 61

River Valley Projects—West Bengal has two principal river valley projects for the improvement of agricultural economy improved industrialisation The first is *Mayurakshi Reservoir Project* The work was begun in 1948 The river Mayurakshi originates from the uplands of Santhal Parganas in Bihar and falls into Bhagirathi after a course of 1 0 miles At Massanjore in Santhal Parganas, the river flows through a narrow valley—an ideal site for a dam The turbulent Mayurakshi sprawling over an area of 1,400 sq. miles through the districts of Birbhum, Murshidabad, Burdwan and Santhal Pargana, is controlled by a dam at Massanjore The water released by the completed project flows through 900 miles of canals and is expected to irrigate 6 0,000 acres from June to October and 170,000 acres from November to May This will convert a single crop area of poor yield into a double crop area of higher yield Generating plant has been installed for generation of 4,000 k w of electrical power The Mayurakshi Dam and three subsidiary barrages and the whole canal system have been completed

Kangsabati Reservoir Project in the Midnapur Bankura district is a Second Plan Project and a start has already been made The scheme consists of the construction of two major earth dams, each of the size of the Maithon Dam of the D V C, complementary to each other The reservoir created by the two dams will ultimately be connected together and the surplus discharge will be passed through a common spillway to be constructed by cutting a saddle in the hills on the left bank

Another principal river valley project is *Damodar Valley Project* undertaken jointly by West Bengal and Bihar with the help of the Central Government This is a multi-purpose project which comprises eight storage chains with hydro-electric stations, two auxiliary plants with an installed capacity of 240,000 k w. and an additional thermal power station at Bokharo with an installed capacity of 200,000 k w. The project will ultimately control the flooding of the Damodar which is notorious for its vagaries and destructiveness. Other important benefits will be irrigation, ample electric power and chief water transport.

Cottage Industries—West Bengal's cottage industry is also considerable, the most important of which is cotton handloom industry. This industry provides employment to the highest number of people in West Bengal. Next in importance is silk industry. Other notable industries of West Bengal are—leather industries, brass and bellmetal industry, ferrous industries, agricultural implements and cutlery, ceramic industries, oil and soap industries, woodworking, fibre industry, fire making, etc. The value of all the cottage industry products, including those of textile industries, is about Rs. 45 crores roughly.

Communications—West Bengal has 2,462 miles of metalled and 2,652 miles of unmetalled roads. There are routes of National Highways falling within West Bengal: Calcutta-Delhi National Highway, Calcutta-Bombay-Madras National Highway, Bihar-Assam National Highway, Calcutta-Siliguri National Highway, Siliguri-Gangtok National Highway and Calcutta-Bongaon National Highway. In addition to this, Calcutta's airport, Dum Dum, is the largest in India. On an average, take-offs and touch downs total 55 a day with passengers over 700.

Population—Regarding population, Hindus form 78.44 and Muslims 19.85 per cent of the total population. Unlike Bombay or Madras, only one language dominates in the State. The number of persons speaking Bengali as their mother tongue are 84.62 p.c. of the total population. The number of persons speaking Bengali as a subsidiary language are 5.4 p.c. of the total population. The literacy according to 1951 census of West Bengal is 21.55 per cent—34.7 p.c. of the total male population and 12.7 p.c. of the total female population. Percentage of literacy of Calcutta is 31.2. In 1951, there were 114 towns. There are seven cities in West Bengal, each with a population of over 100,000 persons. They are Calcutta, Howrah, Tollygunj, Bhatpara, Kharagpur, Garden Reach, South Suburbs (Behala).

Scheduled Tribes—In Bengal after the reorganisation of States, we have as many as 41 tribes with a total population of 1,517,000, such as Santhals, Oraons, Mundas, Koras, Hos, Bhumijs, Bhutias, Chakmas, Hajangs, Lepchas, Asurs, Baigas, Paharis, etc. These people are distributed over different districts in varying numbers, the highest concentration being in Purulia. Midnapur and Jalpaiguri are second and third on the list. Then follow Bankura and Burdwan. The dominant tribe is, of course, the Santhal followed thereby Oraon and the Munda.

Districts of West Bengal—There are two Divisions in the State, ***Burdwan and Presidency Divisions*** divided into following districts—The districts of the Burdwan Division with headquarters in brackets—Bankura (Bankura), Birbhum (Suri), Burdwan (Burdwan), Hooghly (Chinsura), Howrah (Howrah), Midnapore (Midnapur), Purulia (Purulia). The districts of the Presidency Division with headquarters in brackets—Calcutta, Cooch-Bihar (Cooch-Bihar), Darjeeling (Darjeeling), West Dinajpur

(Balurghat), Jalpaiguri (Jalpaiguri), Malda (English Bazar), Murshidabad (Berhampore), Nadia (Krishnagore), 24 Parganas (Alipore).

Population of Districts

	Area (sq. m.)	*Population*		*Area (sq m.)*	*Population*
Burdwan	2,717	2,191,667	Calcutta	28·31	25,48,677
Birbhum	1,754	1,066,889	Nadia	1,527	1,144,924
Bankura	2,653	1,319,259	Murshidabad	2,095	1,715,759
Midnapore	5,264	3,359,022	W Dinajpur	1,378	720,573
Howrah	575	1,611,373	Malda	1,[illegible]29	937,580
Hooghly	1,217	1,601,229	Jalpaiguri	2,407	914,538
24-Parganas	5,605	4,609,309	Darjeeling	1,554	718,332
			Cooch Bihar	1,3[illegible]1	671,158
			Purulia	2,408	1,169,097

BIHAR

		Big Cities.	
Capital	Patna	Patna	283,479
Principal	38,783,778	Jamshedpur	218,162
Language .	Hindi	Gaya . .	133,700
Area (sq m.) ..	67,113	Bhagalpur	114,530
Density of Pop ..	578 per sq m	Ranchi .	106,849
Literacy .	12·15 p	Darbhanga .	84,816
Universities ..	Bihar, Patna	Muzaffarpur .	73,594

Physical Features and Geography—Bihar lies between 20·30' and 27·30' North latitude and between 82·31' and 88·20' East longitude and is bounded on the north by the territory of Nepal and the Darjeeling district of West Bengal, on the east by West Bengal and the Bay of Bengal, on the south by the State of Orissa and on the west by Uttar Pradesh and Madhya Pradesh.

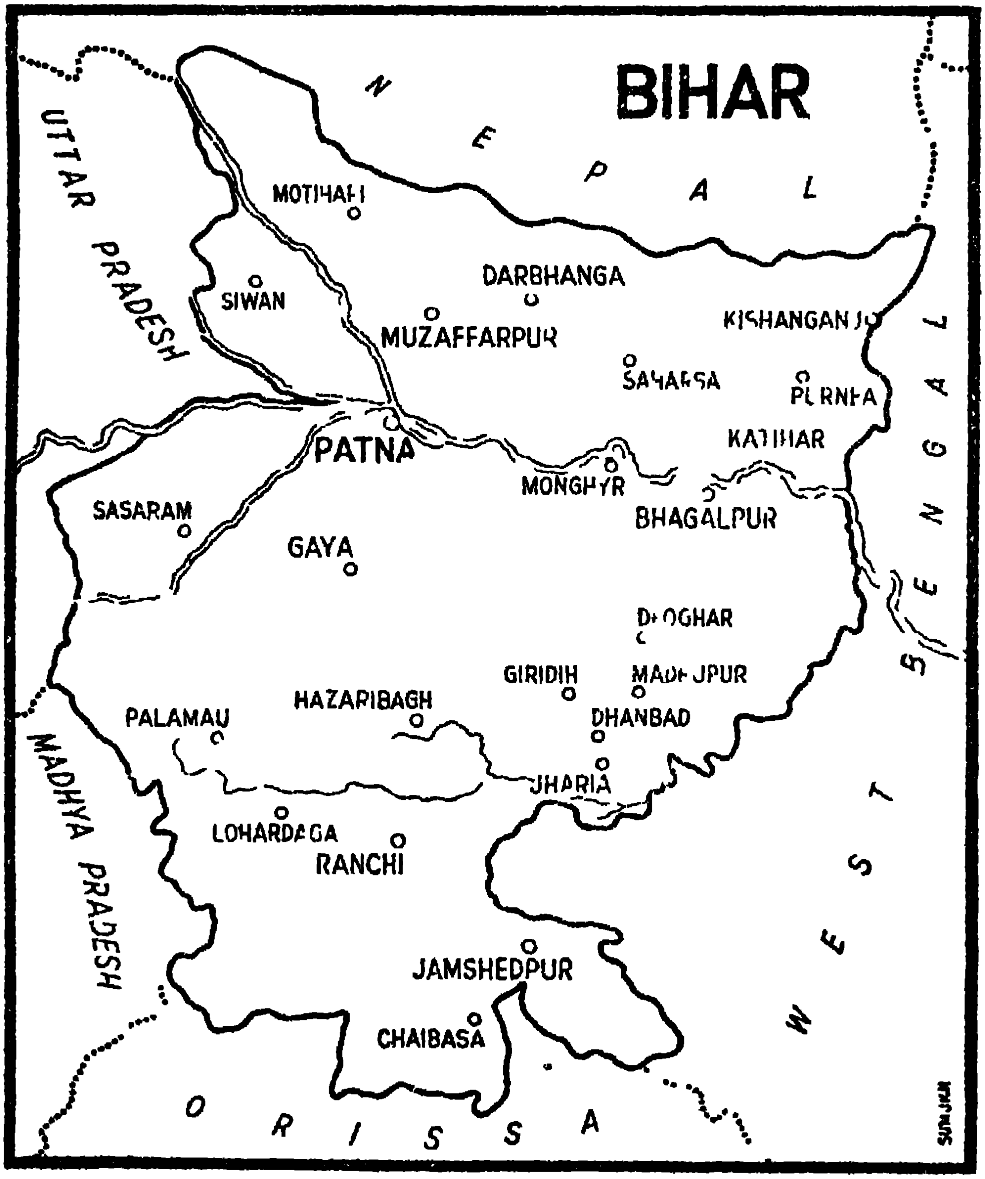
Bihar is clearly divided into three natural parts, viz., (i) *North Bihar*, i.e., the portion north of the Ganga, (ii) *South Bihar*, i.e., the portion south of the Ganga, and (iii) the *Chota Nagpur plateau* which abounds in hills, mountains and forests, and is inhabited largely by the Adibasis

Area & Population—The transfer of 3,165 sq. miles of Bihar territory to West Bengal in 1956 with a population of 1,449,087, reduces the area of the State from 70,330 sq. miles with a population of 40,225,947 to 67,113 sq. miles and population of 38,783,778.

Literacy.—The population of literate persons in Bihar is 4,921,634 (1951 census)—41,72,890 males and 7,48,744 females. Thus the percentage of literacy in the States as a whole is 12·3

Agriculture :—Bihar is essentially an agricultural State. Over 82 per cent of its population depend wholly on agriculture ; only about 7·8 per cent are engaged in mining and industry

Bihar is one of the richest and most fertile agricultural tracts in the whole of India, and produces almost every crop cultivated in the plains of India. The chief crops of this area are paddy, sugarcane, maize, wheat, barley, rahar, jute, tobacco, chilly, potato, oilseeds, pea, khesari, etc. Formerly, there was an extensive indigo plantation also, till synthetic indigo monopolised the market Now indigo has been completely replaced by sugarcane and rabi crops.



South Bihar is not so fertile as North Bihar The chief crops of this area are paddy, maize, jowar, rahar, sugarcane, tobacco, wheat, chilly, peas, mustard, potatoes and other rabi crops.

Forests :—The total area of both Government and private protected forests is 1,32,287 sq. miles, i.e., nearly 19 per cent of the area of the State. It is thus still short of about 1 per cent to meet the minimum requirement of the State. Bihar forests are a valuable source of supply of timber, bamboos, grass, lac, gum, resin, tanning materials, Kendu leaves (for bidis) and large variety of medicinal herbs. Bihar forests contain various kinds of wild life. A National Park is being developed in Hazaribagh.

Minerals :—Bihar ranks first among the States of the Indian Union in mineral production. A large number of minerals are found in the State of which coal, copper ore, iron ore, manganese ore, mica and limestone are the most important and make up more than 95 p.c. of the total production. All the copper ore, more than half of the coal and mica and about 40 p.c. of the iron ore produced in India come from Bihar. The entire Indian output of bentonite comes from near Tinpahar in Santhal Parganas district. Almost all the kyanite production comes from Kharsawan in Singhbhum district. The most important coalfields in Bihar are Jharia, Bokaro and Karanpura in Manbhum and Hazaribagh districts. Jharia field alone accounts for nearly 40 p.c. of the total Indian production. Iron ore deposits occur in South Singhbhum and extend into Orissa. The ore is of the highest quality. India has almost a monopoly of mica as she supplies 80 p.c. of the world requirement of mica out of which Bihar's contribution is of the order of 65 p.c. The Bihar mica belt runs through four districts of Gaya, Hazaribagh, Monghyr and Bhagalpur. Fully [illegible] the production of copper ore in India comes at present from Singhbhum which has the largest known copper deposits in the country. It is being worked at Mosaboni and Maubhandu near Ghatsila. Bauxite occurs on the plateau of Ranchi and Palamau. Extensive deposits of limestone are found in the districts of Shahabad, Palamau, Hazaribagh, Dhanbad and Singhbhum. China clay occurs mainly in Singhbhum, Bhagalpur, Santhal Parganas and Dhanbad. Bihar is the largest producer of China clay in India. Kyanite occurs in Bihar in Singhbhum and Manbhum along the copper belt. Bihar is the principal producer of Kyanite in India. Chromite is worked in Singhbhum. Bihar raises about 24 per cent of the value of India's production of chromite. Ample resources of pyrite, which is one of the important sources of sulphur, has been found in the Sasaram subdivision of the Sahabad district. Apatites occur in considerable quantities in Singhbhum.

Aboriginal Tribes of Bihar —Bihar contains the largest tribal population in India, next to Madhya Pradesh. They constitute exactly 10 p.c. of the total population and are concentrated in the Ranchi, Singhbhum and Santhal Parganas districts. They are altogether 29 scheduled tribes. Linguistically these tribes belong to two families of language, viz., the 'Austric' and the 'Dravidian'. Amongst the Scheduled tribes the Oraons, the Sauria and the Mal Paharyas speak the Dravidian family of language and the rest speak the 'Austric' or the Munda group of language The most important tribes in this State are the Oraons, Mundas, Santhals, Hos, Kharia and the Paharivas. The important minor tribes are Asurs, Birhor, Pahariya, Binjhia, Birjia and Korwa.

Industries.—The most important of the major industries situated in Bihar are the Tata Iron and Steel Works at Jamshedpur and its satellite industries. In fact, Jamshedpur has grown into a base of heavy metal industries, and may well be called the Sheffield of India. Bihar produces more than 78 per cent of the total pig iron, and 67 per cent of the total steel produced in India. The iron deposits of Noamundi, Gua and Buda Bene in Singhbhum supply about 51 per cent of the total consumption of the Tata Iron and Steel Company and the Indian Iron and Steel Company. The Tinplate Company of India situated at Jamshedpur, is the only factory in Bihar manufacturing *tinplates*. The Indian Steel and Wire Products Ltd. at Jamshedpur are engaged in manufacturing *galvanised wires and wire nails*, etc. on a large scale. *Electric wires and cable* are manufactured on modern lines by the Indian Cable Company at Jamshedpur.

Sindri Fertilizer Factory—The 23 crore giant Fertilizer Factory at Sindri, designed to produce annually 3,50,000 tons of ammonium sulphate, is the first major industrial enterprise of the Union Government and is perhaps the biggest fertilizer factory in the East. With the completion of Sindri's expansion schemes in 1959, two new nitrogenous fertilizers ammonium sulphate nitrate (149,000 tons per year) and urea (24,000 tons per year) will be produced.

Telco—Tata Locomotive and Engineering Co., Ltd. (Jamshedpur) manufacture locomotives and other engineering products. Telco is divided into three divisions: Locomotive, Automobile and Foundries.

Rohtas Industries situated in the Dalmianagar is today the largest producing centre in the country for cement and paper and paper boards. The other units of the centre are a sugar factory, chemical factory producing caustic soda, chlorine, sulphuric acid etc., asbestos cement factory, a pipe factory and a power house.

Silk Industry—is a very important cottage industry of Bihar. Mulberry silk worms are reared which produce a variety of silk. Eri silk worm rearing is also an important industry in Bihar. This variety of worms feed on oil-bearing castor seed and it is cultivated all over Bihar. Besides mulberry and eri, Bihar produce largest yardage of tassar silk in India, which is produced in the jungles of Chotanagpur.

Cement—Out of the thirty cement factories in India five are located in Bihar. Hume pipes and other cement concrete products are manufactured by the Indian Hume Pipe Co., Ltd. at Jamshedpur and Patna.

Aluminium.—The Indian Aluminium Company at Muri (Ranchi) are engaged in manufacturing aluminium powder from bauxite, mined near Lohardaga in Ranchi district.

Lac—Bihar produces 40 per cent of the total production of lac in India.

Tobacco Products—The annual production of tobacco in Bihar is estimated at over 50,000 tons. A number of tobacco curing factories have, therefore, been working in tobacco producing regions of the State, namely, in the districts of Muzaffarpur, Darbhanga and Monghyr. At Monghyr is situated a big and the only cigarette manufacturing factory in the State.

Sugar Industry—The sugar industry occupies an important place in the rural economy of the State. About 4 lakh cane-growers and about 10 thousand workers find employment in this industry. After Uttar Pradesh, Bihar is the most important white sugar area in India.

The Districts of Bihar—Bhagalpur, Champaran, Darbhanga, Dhanbad, Gaya, Hazaribagh, Monghyr, Muzaffarpur, Palamau, Patna, Purnea, Ranchi, Saharsa, Santhal Parganas, Saran, Sahabad, Singhbhum.

BOMBAY

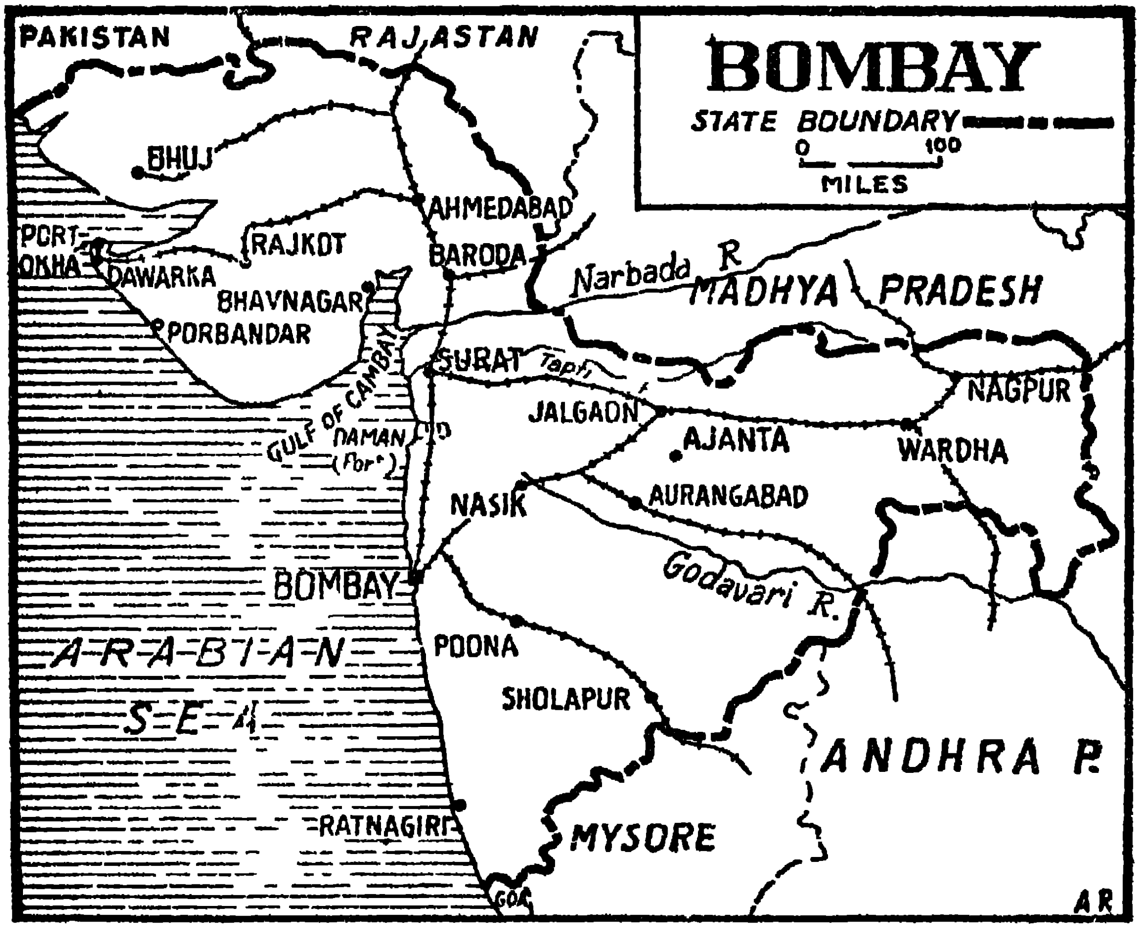
Capital	Bombay	Sholapur	266,500
Population	48,265,221	Surat	223,182
Area (sq. m.)	190,919	Baroda	211,407
Literacy	21·64%	Kolhapur	136,838
Density of Pop.	253 per sq. m.	Nagpur	449,099
Languages	Gujarati, Marathi.	Bhavnagar	137,951
Big Cities:		Rajkot	132,069
Bombay	2,839,270	Jamnagar	104,419
Ahmedabad	788,333		
Poona	480,982		

Universities:
Bombay, Nagpur, Poona, Baroda, Gujarat, S.N.D.T. Women's University (Bom.), Sardar Vallabbhai Vidyapith (Anand), Marathwada (Aurangabad).

The new Bombay State has been formed by merging States of Kutch and Saurashtra and the Marathi-speaking areas of Hyderabad (commonly known as Marathwada) and Madhya Pradesh (also called Vidarbha) in the old State of Bombay after transfer from that State of the Kannada-speaking areas of the Belgaum, Bijapur, Kanara and Dharwar districts which have been added to the State of Mysore and the Abu Road taluka of Banaskantha district which has gone to Rajasthan.

The new State of Bombay is bilingual and brings together about 26 million Marathi-speaking and about 16 million Gujarati-speaking people. Apart from this, there is linguistic minority totalling about 7½ million which is roughly 15 per cent of the population, speaking various national languages of our country. More than a million people have Hindi as their mother tongue.

With Bombay as a starting point, the scenery of the new State ranges from the lovely palm-fringed beaches and the craggy creeks of Saurashtra to the majestic grandeur of the Western Ghats and the steep-sided edges of the Deccan plateau. In the hinterland of Bombay, the black soil is ideal for cotton growing. The landscape of Saurashtra ranges from the Girnar Hills to the thick forest and desert scrubland. Kutch is a small peninsula in the Arabian Sea. It is mainly an agricultural land. Cattle breeding is the natural occupation of the people. On the South and West are the Gulf of Kutch and Arabian Sea. On the East is the little Rann (desert) and beyond it are the areas of Saurashtra and North Gujarat. On the North is the great Rann bordering the Pakistan territory. The Rann of Kutch is a geographical phenomenon. It is a sheet of water during rains, and yet dry enough to allow one to walk across in the other ocean. The entire coast-line bordering new Bombay State is studded with numerous ports—major, intermediate and minor. Apart from Bombay, the premier port of the country, and Okha at the northern tip of Saurashtra, the new State will have the recently built port of Kandla in Kutch, the second major port in the West Coast.



A wide diversity exists in the soil and climate of the State from the north to the south, average rainfall in the north being above 30 inches, with about 30 inches in the south, above 100 inches in the middle. Agriculture, the occupation of the majority of the people, naturally varies. On the whole, Bombay has the largest area of the Union under jowar and bajra, second in cotton and tobacco, third in groundnut and produces considerable quantities of rice, wheat and ragi and small quantities of maize, barley, gram, sugarcane, and oilseeds. The forest tracts of the State, which constitute about 16 p.c. of the area, move along with the Western Ghats, Satpura Hills, and the Vindhya ranges. While Bauxite, manganese and glass sand are the only minerals that are being worked in sufficient quantities, other resources are also known to exist and await prospecting.

Industry and commerce flourish greatly in this maritime State, the number of registered factories here being the largest in the Union. In the hinterland of Bombay, the black soil is ideal for cotton growing. Already Bombay State is the centre of cotton textile industry and with the integration of the Vidarbha and Marathawada areas it will be the foremost centre of this industry in the country. The Bombay's premier position in the cotton textile industry will now be reinforced by the [illegible] cotton growing areas of Vidarbha and the entry of textile mills of Saurashtra and Nagpur. As many as 175 out of the country's total of 291 textile mills will be now within the territory of the new State. Regarding other industries, Bombay leads the rest of the country in *Vanaspati*, the cement manufacture of the State has been greatly increased with the addition of Saurashtra cement factories. In power alcohol, the output of Bombay State will come a close second to West Bengal.

Ports. The entire coastline of Bombay is studded with numerous ports—major, intermediate and minor. Apart from Bombay port and Okha at the northern tip of Saurashtra, the new State will have the recently built port of Kandla in Kutch, the second major port on the west coast.

Language—Marathi speaking population is 2 0 lakhs which is 8 3 p.c. of the population. Gujarati speaking population is 163 lakhs which is 51 p.c. of the total population.

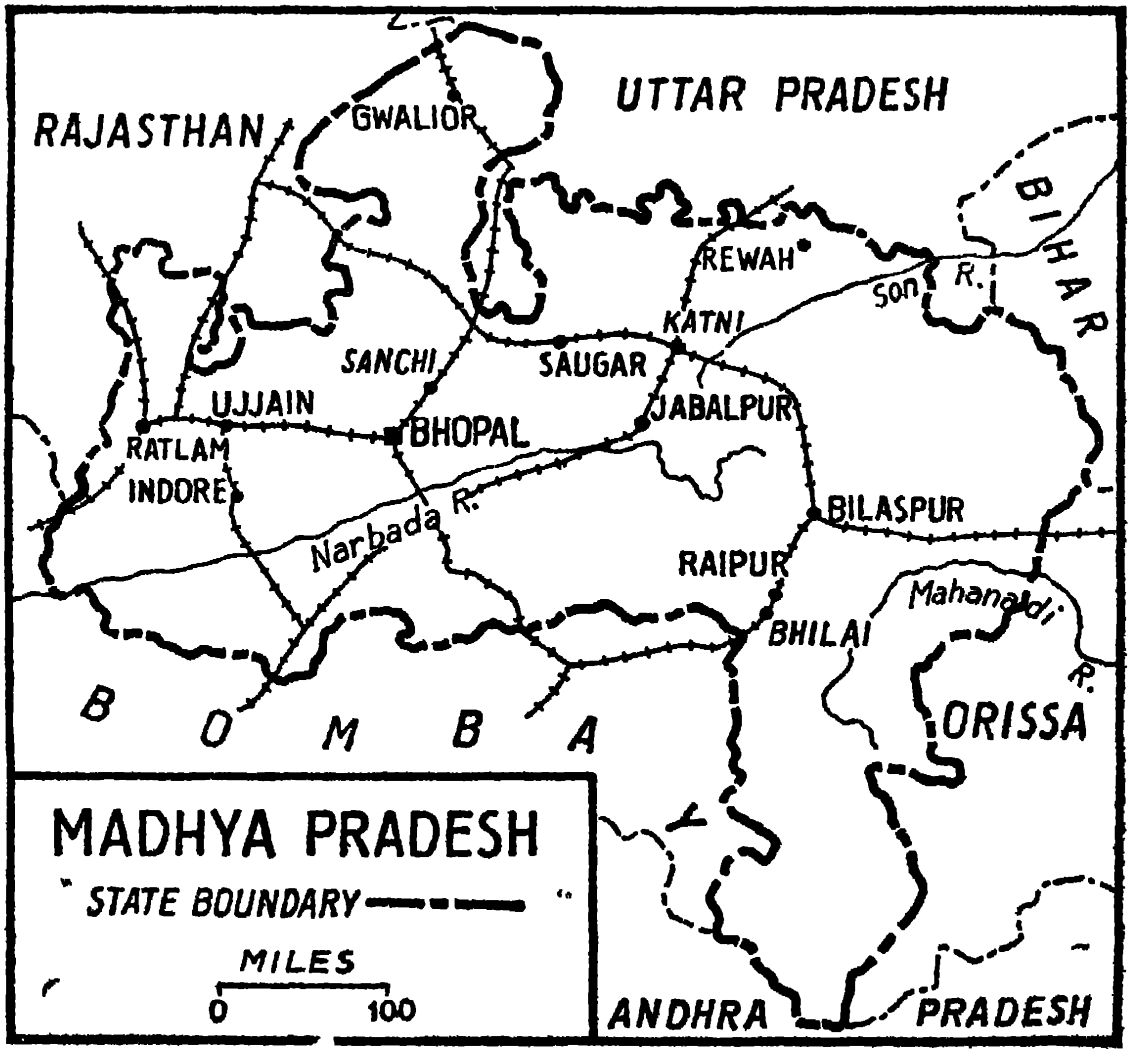
Major Cottage Industries—Textile (cotton), Textile (wool), gold and silver thread, bidi, tanning and leather working, carpentry, wood working etc., bamboo and cane work, pottery, bricks, tiles etc., gur, vegetable oils, crafts.

The Districts of Bombay—Ahmedabad, Ahmednagar, Akola, Amravati, Amreli, Aurangabad, Banaskantha, Baroda, Bhandara, Bhir, Broach, Buldana, Chanda, Dangs, East Khandesh, Gohilwad, Greater Bombay, Halar, Kaira, Kolaba, Kolhapur, Kutch, Madhya Saurashtra, Mehsana, Nagpur, Nanded, Nasik, Osmanabad, Panchmahals, Parbhani, Poona, Ratnagiri, Sabarkantha, Satara North, Satara South, Sholapur, Sorath, Surat, Thana, Wardha, West Khandesh, Yeotmal, Zalawad.

MADHYA PRADESH

Capital	Bhopal	Principal Language	Hindi
Summer Capital	Panchmahri	*Cities* :	
Population	26,071,637	Bhopal	102,333
Area (sq. m.)	171,8 0	Gwalior	241,577
Universities	Saugor, Jabalpur, Vikram	Ujjain	129,817
Literacy	16.22 p.c.	Indore	310,859
Density per sq. m.	152	Jabalpur	256,998
Literary	9.9 p.s.	Saugar	239,993
Forest area	30,741 sq. m.		

Madhya Pradesh is true to its name and lies in the centre of India. In fact the geographical centre of India has been located at Sihora near Jabalpur. Girdled by six States, Uttar Pradesh, Bihar, Orissa, Andhra, Bombay and Rajasthan, it lays claim to be the heart of India. The State is the second



biggest in India, after Bombay, with an area of 171 300 sq miles. In respect of population, it takes the fifth place after U P, Bombay, Bihar and Andhra It is composed of what formerly were Madhya Bharat, Bhopal and Vindhya Pradesh States together with the 17 Hindi districts of former Madhya Pradesh, Sironj sub-division of Kotah district of Rajasthan excluding the Sunel enclave of Mandsaur district in former Madhya Pradesh

The economy of the new State is predominantly agricultural and 78 per cent of the population is dependent on it for are their livelihood The State is self sufficient in food The State possesses soils of almost every class from rich black cotton soil to the dry red earth Nearly third of its area is brought under the plough, with major crops like rice, wheat, jawar, maize, bapra, pulses, oilseeds and cotton The chief food crops are wheat in Malwa, Narmada Valley, Satna, Chhatarpur and Bhopal, rice in Chhattisgarh, Shahdol, Rewa, Jhabua, Dhar and Indore and Jawar in Bhopal, Sagar, Honsangabad Nimar, Khargone Ujjain, Shajapur, Mandsor and Guna and pulses all over the State Cash crops include cotton in Malwa and Nimar and sugarcane and oilseeds all over the State

Forests—Twenty nine per cent of the State's area is covered by forests. This is the largest forest area in India in proportion to the total area of the State, the second largest next only to Assam The forests are chiefly saj, dhaora tenu, mahua, bamboo, teak, sal, palas, babul salai, anjan and harra The largest products of the best quality teak in India come from these forests These forests provide valuable raw materials to various industries including a good number of cottage industries like paper, lac, paints and varnishes, bidi, soap, etc

Minerals—Mineral wealth of the State is varied as well as extensive and the State contains extensive belts of mineral deposits Key minerals like coal, iron, bauxite, manganese ore limestone, clay, steatite, marble red and yellow ochres, graphite, mica, copper, etc, which are at present being exploited from about 200 miles, spread over the State Coal is one of the most important of the minerals of the State It is available in Surguja, Raigarh, Bilaspur, Chhindwara Shahdol, Sidhi, Hosangabad and Betul districts At present there are 52 coal mines in the State The Kobra coal mines which are now being opened up jointly by the Government of India and the State Government, are known to extend over an area of 200 sq miles and are expected to produce 4 million tons of coal annually which will make about 7 p c of the total coal production of India The resources of iron ore deposits in the State are estimated at 1 580 million tons They are mainly confined to Drug, Bastar, Jabalpur, Chhatarpur and Hosangabad districts With the setting up of a million ton steel plant at Bhilai which has started production, the first real recognition of the resources of Madhya Pradesh has begun Manganese which is vital to the steel industry is found mainly in Balurghat, Chhindwara, Seoni and Jhabua districts Madhya Pradesh contributes nearly 65 p c of the total production of the ore in India, which in turn ranks next to Russia The reserves are estimated at 50 8 million tons Large reserves of bauxite, about 200 million tons, occur in the districts of Shahdol, Bilaspur, Mandla, Jabalpur, Raigarh, Surguja and Balaghat. Vast tracts of good quality of limestone exist in several parts of the State. The limestone near Katni, Jukehi, Satna and Maihar is of high purity. The diamond mines of the Vindya Pradesh produce 90 per cent of India's diamonds. The diamond mines at Panna are shortly to be mechanised on the advice of the Russian experts.

Industries—As for industries, the State can boast of having the first newsprint mill in India. Costing over Rs 6 crores and estimated to produce hundred tons a day, Nepa Mills expect to meet one third of the country's newsprint requirements. Biggest cement factory in the country is located at Kegnone in this State. There are 20 cotton mills in the State and also 7 sugar mills. The other important industries of the State include a staple fibre factory at Nagda, textile machinery factory at Gwalior, straw products at Bhopal, straw board mill at Ratlam, biscuit factory at Gwalior, match factory at Gwalior, Gwalior potteries at Gwalior.

Parts of Madhya Pradesh are well known for traditional village and home crafts such as chanderi [illegible], leather toys, cloth, [illegible] and clay toys, pottery, [illegible] etc. Handloom industry, of course, takes the pride of place with a [illegible] of [illegible] weavers working all over the State.

People & Languages—Few other States in India will compare with Madhya Pradesh in the diversity of ethnical constitution. This is reflected in the [illegible] spoken all over the State. As many as 377 [illegible] languages and dialects were returned [illegible] at the 1951 census. Roughly the population can be split up into two divisions—first being the settlers from outside, the other being the indigenous Adivasis. The former comprise a mixture of all social trends from the earliest inhabitants to the last of the immigrant waves. And the latter, 12 per cent of the population, comprise the Mundas, [illegible], Gond, Miria, Mandia, Bhil [illegible] and other Dravidian tribes, split up into numerous local groups inhabiting the farthest jungle recesses.

Hindi is the chief language commonly understood and spoken throughout the State. There are, however, local and regional dialects, mainly among them are Malwi in Malwa, Nimari in Nimar, Bundelkhandi in the Narmada valley, Baghelkhandi in the former Rewa State and Chhattisgarhi in Chhattisgarh. The aboriginals have their dialects too including Halbi, Gondi etc.

Culture—Cultural heritage of Madhya Pradesh is outstanding. The examples are (1) Khajuraho temples—the highest water mark of medieval sculpture and architecture (2) the frescoes of Bagh caves (3) Mandu—the 'city of joy' (4) Gwalior Fort, (5) Great Stupa at Sanchi (6) marble rocks near Jabalpur (7) Ancient city of Ujjain, (8) Panchmarhi—the health and summer resort.

The Districts of Madhya Pradesh—Balaghat, Bastar, Betul, Bhilsa, Bhind, Bilaspur, Chhatarpur, Chhindwara, Damoh, Datia, Dewas, Dhar, Durg, Gird, Goona, Hoshangabad, Indore, Jabalpur, Jhabua, Mandla, Mandasaur, Morena, Narsimhapur, Nimar (Khandwa), Nimar (Khargone), Panna, Raigarh, Raipur, Raisen, Rajgarh, Ratlam, Rewa, Sagar, Satna, Sehore, Seoni, Shadol, Shajapur, Shivapuri, Sidhi, Surguja, Tikamgarh and Ujjain.

MADRAS

Capital	Madras	Salem	202,335
Population ..	29,974,936	Coimbatore	197,755
Area (sq m)	50,1[illegible]4	Vellore	106,024
Principal Language	Tamil	Tanjore	100,680
Literacy	20.81	Tuticorin	98,866
Density of Pop	597 per sq m	Kumbakonam	91,643
Universities	Madras, Annamalai	Tirunelveli	73,476
		Nagercoil	73,908
		Cuddalore	69,084
Big Cities		Erode	57,576
Madras ..	1,416,0[illegible]	Tirupur	52,479
Madurai	[illegible]		
Tiruchirapalli	[illegible]		

The new State of Madras was formed under the Reorganisation of States Act of 19[illegible]. It is bounded by the new Mysore and Andhra [illegible] on the north, the Bay of Bengal on the East and the range of Western Ghats on the West. With the exception of five taluks from Kerala [illegible] the [illegible] Islands and the [illegible] Cape Comorin [illegible] most State of the Republic. This reorganisation [illegible] reduction of the [illegible] population of the [illegible] Madras now [illegible] though in the [illegible] of population it takes fifth place. With the transfer of South Kanara and Malabar [illegible] respectively, the State has become a compact linguistic unit.

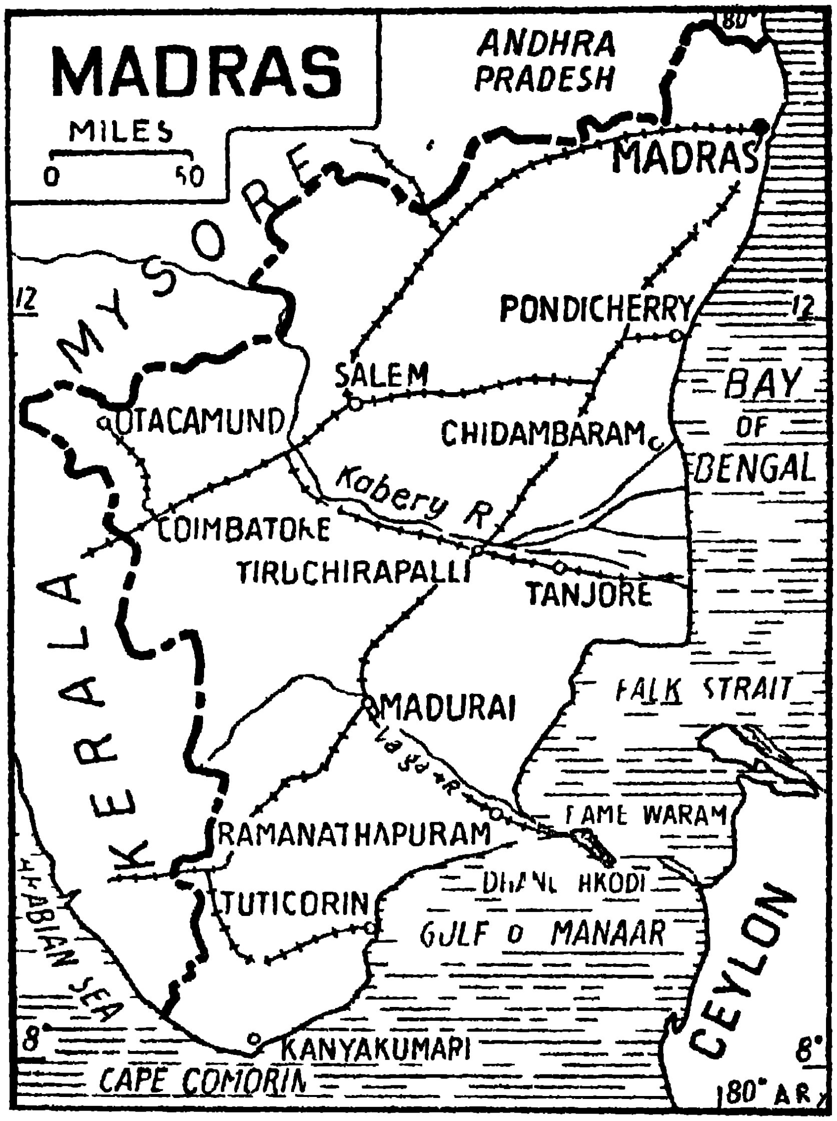
Poverty of water becomes pronounced after the [illegible] of the State. The State has only one big river, the Cauvery [illegible] waters are already utilised to the last drop. Other smaller rivers [illegible] all been harnessed.

Forests The forests mainly consist of timber and [illegible] tracts. Forests in Madras State show an amazing variation in [illegible] composition and value with a rainfall varying from 3[illegible]" to 3[illegible]0" per annum. While the West Coast forests provide such well [illegible] timber species as teak and rosewood, the comparatively dry forests in the eastern districts contain valuable sandal wood in which India holds [illegible] world monopoly. The timber forests are mostly confined to the high rainfall regions of the Western Ghats in South Kanara, Coimbatore, Madurai and Tirunelvelli with more than forty marketable species. [illegible] is the most important forest produce of Madras. India holds world [illegible] monopoly in sandal wood and nearly 50 p.c. of the supplies come from Madras State.

Agriculture is the main occupation of the people. Not less than 61.54 per cent of the people in the State depend on agriculture.

The principal commercial crops of the State are groundnut, cotton, sugarcane, gingely, coconut, tapioca and castor arranged in a descending order of importance with reference to area The staple foodcrops of the State are paddy, millets, pulses, onions, potatoes, sweet potatoes, tapioca and plantains

Madras has some basic minerals such as iron ores, bauxite and gypsum. The integrated Neiveli Project which aims to utilise hidden lignite wealth of South Arcot is full of bright promise The important minerals of Madras are mica, gypsum, bauxite, limestone, china clay, magnesite etc



Power Project (i) Muchukund Hydro-electric Schemes, (ii) Pykara Electric Scheme (iii) Mayor Hydro-electric Scheme, (iv) Madras Thermal Scheme, (v) Papanasam Electric System, (vi) Mettur Hydro-electric Scheme

Principal Irrigation Projects—Lower Bhavani (Coimbatore and Tiruchirapalli districts), Mettur (Salem and Coimbatore districts), Araniar (Chingleput districts), Amaravati (Coimbatore district), Sathnur (North and South Arcot).

Industries—The most important industries of the State are textiles, engineering, sugar, tobacco, matches, oil milling, bricks and tiles, cement, lime, potteries, tanning, ginning and pressing South India is noted for tanning industry The State exports to the foreign markets hides and skins valued at more than 11 crores of rupees per annum Other industries, both perennial and seasonal include hosiery, silk mills woollen mills, foundries, iron and steel mills, tea and coffee, breweries rice mills bones and manures, chemicals oil mills, paints, soaps, paper mills, printing bricks and tiles, glass, saw mills, rope works

Main Industries are—(1) Textiles, (2) Sericulture ( ) Sugar, (4) Oil milling, (5) Vanaspati, (6) Soap, (7) Tiles, (8) Matches (9) Cement, (10) Chemicals and Fertilisers, (11) Glass, (12) Film Industry (13) Out of the 80 big tanneries in India, 50 are located in Madras

Main Cottage Industries—(1) Handloom Weaving, (2) Brass wares, (3) Palmyra jaggery products (4) Coir goods (5) Pottery, (6) Mats, (7) Umbrella (8) Khadi (9) Stone utensils, (10) matches, (11) Aluminium wares, (12) Lac works, (13) Glass bangles, (14) Wood carving, (15) Slates, (16) Ivory works, (17) Leather goods and leather tanning The handloom industry with 5 6 lakh looms is the biggest cottage industry in the State

Minerals—The existence of about 2,000 million tons of lignite (brown coal) in North Arcot district has been found out Magnesite bauxite and iron ores occur in Salem district

Cultural Heritage—Culture and civilisation language and literature, art, sculpture and music have developed in this area as nowhere else in the country The holy Gopurams and the important sculptures on rock in Tanjore Mahabalipuram and Kancheepuram, the exquisite craftsmanship of manship of Tanjore and the delicate movements of Bharata Natyam artists are the cultural heritage of the State Mahabalipuram, otherwise known as "Seven Pagodas", lies at a distance of nearly 35 miles south of Madras and is remarkable for monolithic temples and rock cut caves which are over 2,000 years old, Tirukkalukkundram, which literally means the sacred hill of the kites, is situated about 45 miles from Madras According to a legend, two vultures who were originally two sages come every day to this temple to take their food here of all the holy places in the Madras State, Rameswaram is prominent Next in importance is Madurai which contains the temple of Minakshi, Srirangam is nearly 200 miles south of Madras, is renowned for the temple of Ranganadha Tanjore contains the famous temple of Brihadeswara

Music and dance are the two bright gems among South India's numerous fine arts Carnatic music is one of the oldest of the two systems of classical music in India and is older than the Hindustani music system of the North Of the four well defined styles of Indian dancing, the ***Bharata Natyam*** of the South is the oldest and the most authoritative art form. It has its roots in the classical tradition of the 'Natya Sastra' of Bharata

Districts of Madras—Chingleput, Coimbatore, Kanyakumari, Madras, Madurai, Nilgiris, North Arcot, Ramanathapuram, Salem, South Arcot, Tanjore, Tiruchirapalli, Tirunelveli.

ORISSA

Capital	.. Bhubaneswar	*City*		
Population	14,64[illegible]46	Cuttack		102,505
Area (sq m)	. [illegible]0,[illegible]0	Berhampore	.	62,343
Principal Language	Oriya	Puri	..	4[illegible]0[illegible]
Literacy	.. 15.0 p c	*Towns*		
Density of Pop	[illegible]4[illegible] per sq m	Sambalpur, Balasore, Parlakimedi,		
University	.. Utkal	Jeypur		

The State of Orissa with a population of 1[illegible]94[illegible] is bounded on the south-west [illegible] Andhra Pradesh [illegible] West Bengal, respectively [illegible] Madhya Pradesh [illegible] on the north [illegible] west, and [illegible] waters of [illegible]. The whole area of the State [illegible] square miles [illegible] in the tropical zone [illegible] northern plateau, the [illegible] the central tract and the [illegible]. There are [illegible] square miles of forest and 3[illegible]0 miles of [illegible] highest hill in Orissa [illegible] 5,[illegible] ft.

The great Mahanadi, the Brahmani and the Baitarani are the principal rivers. They run almost parallel from north-west to south-east. There are also some smaller rivers.

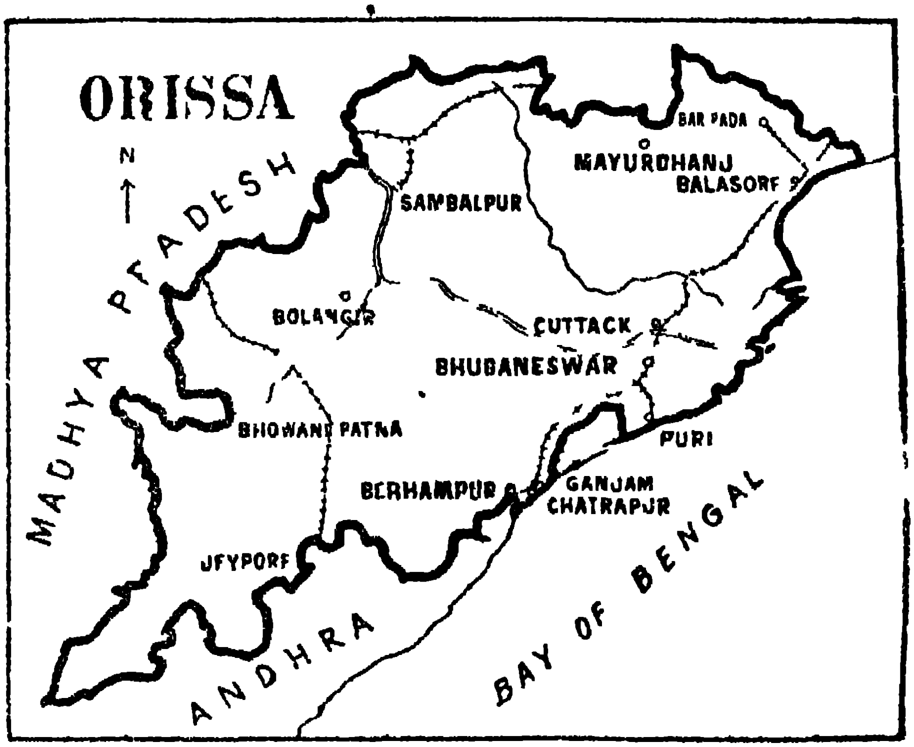
Orissa has [illegible] miles of National Highways and 1,343 miles of all-weather State Highways and 2,500 miles of District Roads connecting [illegible] places of interest in the State.

The cold weather lasts from November to February. The hot weather begins in March and terminates with the setting in of the rains in June, which continues till the month of October. The average rainfall in the northern districts is about 6[illegible] inches while in the southern districts it is about 50 inches.

An analysis of the population of Orissa is interesting. Out of the total population of 1[illegible]645,[illegible]46 the number of males is 7[illegible]42,89[illegible] and that of females 7[illegible]03,05[illegible]. The density of population per sq mile is [illegible]43 as against Indian average of 31[illegible].

Orissa is predominantly a rural State. It contains only one city and 38 towns whereas the number of villages is 50,[illegible]8[illegible]. Thus the percentage of the urban population is as low as 4.06.

The two outstanding features of the present day Orissa are the taming at least partially of the most turbulent of the State's river *Mahanadi*. By the construction of the Hirakud dam, not only is the annual devastation by floods considerably checked but facilities will be provided to irrigate over 1,40,000 acres by the completion of the delta irrigation project in the Second Plan period. Hirakud will also be the focal point for the industrial development of the State with the Rourkela Steel Plant already coming up and an aluminium factory being erected near the dam site.



Industry—Awaiting the harnessing of the Mahanadi, Orissa is yet backward in industrial production. [illegible] only [illegible] and [illegible] in small quantities. Handloom industry is by far the most universal industry in Orissa. The brass and bell-metal industry has also reached higher order. Filigree and horn industries are the two of the principal cottage industries of Orissa. Ornaments of various kinds are made and they possess a high degree of workmanship and finish. Some 30 varieties of articles are made from the horns. Mainly rural, her communications are proverbially backward, with 12,47[illegible] miles of roads and 785 miles of railway.

Forest—Forests occupy about 24,000 sq. miles i.e. about 40 p.c. of the State's land surface. The timber species of the State are as follows—sal, piasal, [illegible], rosewood, gambhar, bandhan and [illegible]. Of the minor produce, the most important is the kendu leaves which are in great demand for the manufacture of bidi. The next in importance is the bamboo which has helped to start paper mills. Another important item of minor forest produce is Rouwolfia Surpentina which reduces high blood pressure. The other minor important forest produce are lac, etc.

Minerals—Extensive deposits of iron ore containing over 60 p.c. iron occur in the State. Among these, the deposits in the districts of Sundargarh, Keonjhar and Mayurbhanj are the most important. In addition to these, the recently discovered iron ore deposits in the Cuttack district and Mayurbhanj are also important Orissa contributes 20 p.c. of Indian manganese The important manganese deposits are distributed in Keonjhar, Sundargarh, Balangir and Kalahandi districts of Orissa Deposits of chromite occur in the districts of Keonjhar, Dhenkanal and Cuttack. Talcher has the largest coalfields in Orissa Dolomite & limestones occur in large quantities in Gangpur and Sundargarh.

Indian States merged with Orissa—Patna, Athagarh, Athmalik, Khandpara, Rairakhol, Ranpur, Bamra, Daspalla, Hindol, Narsingpur, Nayagarh, Nilgiri, Pallahara, Sonepur, Talcher and Tigiria.

Districts of Orissa—Balasore, Bolangir, Cuttack, Dhenkanal, Ganjam, Kalahandi, Keonjhar, Koraput, Mayurbhanj, Phulbani, Puri, Sambalpur, Sundargarh

PUNJAB

Capital	Chandigarh	*Cities*	
Area	47,062 sq. m.	Amritsar	648,358
Population	16,13,48,90	Patiala	67,869
Density of Pop		Jullundar	325,747
(per sq. m.)	343	Ludhiana	153,797
Literacy	15.23 p.c.	Ambala Cantt	94,043
Principal Languages	Punjabi, Hindi	*Towns*	
University	Punjab	Rohtak, Karnal, Batala, Panipat, Bhiwani	

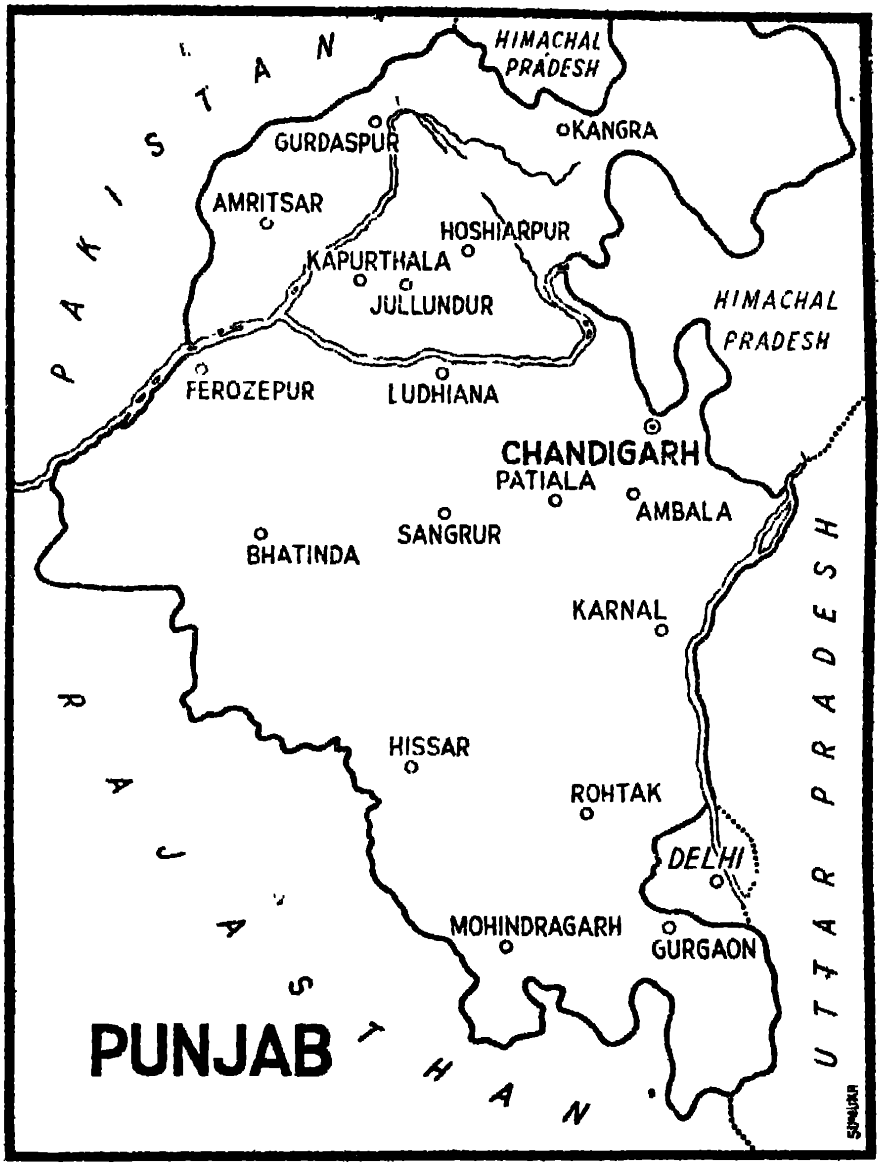
Bounded on the west by Pakistan on the north by Kashmir, a block of Himachal Pradesh and Tibet and on the east by the river Jumna, the new State stretches far off into the hollow formed by Rajasthan, Uttar Pradesh and Delhi on the south east Its area is 47,062 square miles lying between 27½° and 34° north

The population of the new State according to 1951 census is 16,134,890 The organised State of Punjab is amongst the densely inhabited areas of India Its density of population works 343 persons per square mile as against 338·[illegible] and 345·3 persons in the former States of Punjab and Pepsu respectively.

In the new State of Punjab 66·5 per cent of the people are engaged in agriculture.

So far as literacy is concerned, the percentage in the new State works out to be 15·23.

For the more convenient transaction of the business of Government with regard to some specific subjects, the new State has been divided into two regions—namely, Hindi-speaking and Punjabi-speaking.' For each of the regions, there will be a Regional Committee of the State Assembly consisting of the legislators belonging to each region including the Ministers from that region but not including the Chief Minister. The advice tendered by the Regional Committees in respect of specified subjects will normally be



accepted by the Government and the State Legislatures. In case of difference of opinion, however, reference will be made to the Governor whose decision will be final and binding. The Regional Committees will also be empowered to make proposals with regard to "questions of general policy not involving any financial commitments other than expenditure of a routine and incidental character."

Language Policy—The new Punjab is a bilingual State recognising both Hindi in Devnagri script and Punjabi in Gurumukhi script as the official languages of the State. The official language of each region at the district level and below will be the respective regional language, namely Hindi and Punjabi.

The Hindi region of Punjab embraces the districts of Kangra, Simla, Karnal, Rohtak, Gurgaon, Hisasr, Mohindargarh, Kondaghat and Nalgarh tehsils of Patiala, Ambala district (excluding the Rupar and Chandigarh Assembly Constituencies) and Jind and Narwana tehsils of Sugar district.

The Punjabi region consists of districts of Gurdaspur, Amritsar, Bhatinda, Jullundur, Hosiarpur, Ferozepur, Ludhiana, Kapurtala, Rupar and Chandigarh Assembly Constituencies of Ambala district, Patiala district excluding Kandaghat and Nalgarh tehsils and Sangur district excluding Jind and Narwana tehsils. The Chandigarh capital project will not form part of either of the two regions.

Agriculture—The main occupation of the people is no doubt agriculture, 66·5 p c. of the people are engaged in it. In the matter of food production, Punjab is the second largest wheat and gram-producing area in the Union, third in barley and maize, fourth in bajra and sugarcane, while it produces considerable quantities of jowar, cotton, rice, rape, mustard and small quantities of tea, tobacco, groundnut and linseed. The production of cotton in Punjab amounts to one-fifth of the total production of the country.

Irrigation—After the partition, the best canal irrigated areas were lost to the West Punjab ; vigorous efforts, therefore, had to be made to extend more and more irrigation facilities to fill the gap created by the partition. Besides the multipurpose Bhakra-Nangal and Harike Projects and minor irrigation programme, a large number of other schemes also came to be undertaken during first Five-Year Plan period, such as remodelling and Western Jumna Canal, construction of flood irrigation channels, the extension of irrigation on the Eastern Canal, etc. In Pepsu Dadri Irrigation Scheme, the Narnaul Bund and Bein River Projects are some of the major schemes.

Industries—Among the important industrial centres, Jullundur has already become famous for producing sports goods, while Batala and Ludhiana are well-known for light engineering works and Amritsar for textile goods. Sonepat is well-known for cycle factory which is one of the largest of its kind in the country. The other large scale industries include one woollen mill at Dhariwal, one new cotton spinning mill at Hissar, one sugar factory at Abdullapur, one paper mill at Jamnagar.

Regarding small scale industries, the new State has a large number of medium and small-scale industries which include scientific instruments, glassware, wooden planks and hooks, foundry and engineering, rerolling mills, cotton ginning, canning and preservation of foods, etc In the production of artificial silks, Punjab ranks next to Bombay. There are working at present 35 units in the State.

Regarding cottage industries, manufacture of blankets, 'kheses', rugs, cycle parts, utensil making, tanning and wood industries, silk spinning and weaving, potteries, shoe making, sewing machine parts, etc, are amongst the principal industries of the new State There are more than 73,500 handlooms in the new State In hosiery industry with 550 concerns out of a total of about 951 in India, Bengal occupies the leading position in the whole country In the production of artificial silk, Punjab ranks next only to Bombay

Electricity - The main sources of electric supply in the State are (1) Uhl River Hydro Electric Scheme where four sets of 12,000 kw each including one stand-by, are installed (2) The Ganguwal Power House with 3 units of 24,000 kw each, out of which at present two are working (3) The Kotla Power House with three units of 24,000 kw out of which one is working at present, and (4) a number of Government and private thermal electric supply stations at various places Nine more generating units of 90,000 kw each are scheduled to be installed at the site of Bhakra Dam

The Districts Ambala, Amritsar, Barnala, Bhatinda, Fatehgarh Sahib, Ferozepur, Gurdaspur, Gurgaon, Hissar, Hoshiarpur, Jullundur, Kangra, Kapurthala, Karnal, Kohistan, Ludhiana, Mohindergarh, Patiala, Rohtak, Sangrur, Simla

UTTAR PRADESH

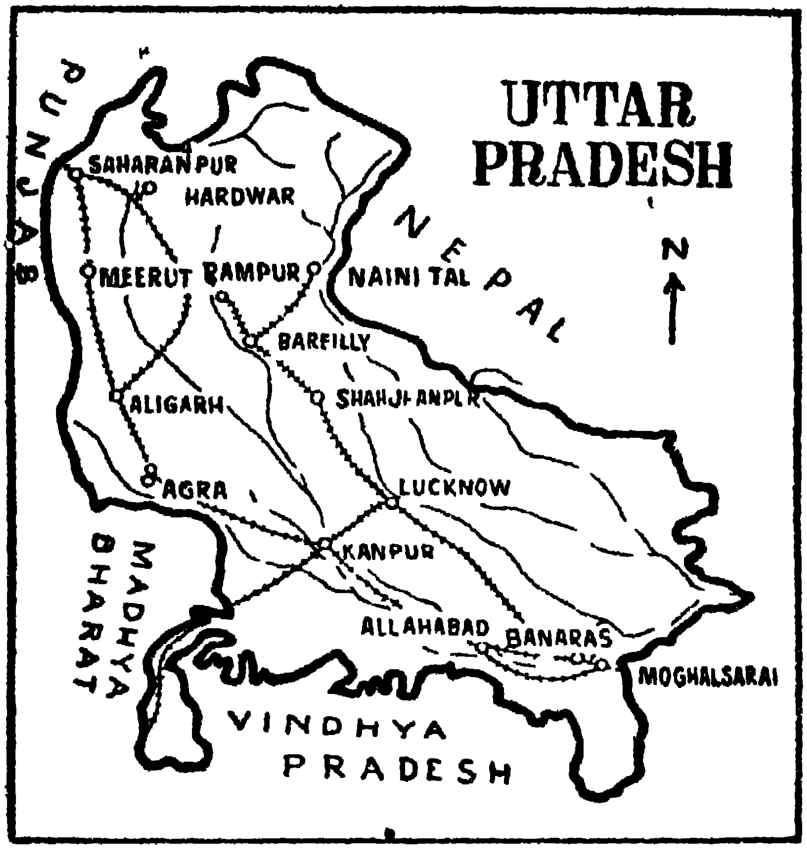
Capital ..	Lucknow
Population	63,215,742
Area (sq m) ..	113,423
Literacy	10.8 pc
Density of Pop .	557 per sq m
Principal Language ..	Hindi

Universities .

Lucknow, Allahabad, Agra, Aligarh, Banaras, Gorakhpur, Roorkee, Kurukshetra

Cities	
Kanpur	705,383
Lucknow .	498,861
Agra .	375,665
Meerut .	233,183
Meerut Cantt .	74,776
Bareilly	208,083
Moradabad	161,854
Saharanpur ..	148,435
Dehra Dun .. .	144,216
Aligarh	141,619
Rampur .	134,277
Gorakhpur	132,436
Jhansi . .	127,365
Mathura .	105,773
Shahjahanpur ..	104,835

Uttar Pradesh, another frontier State along the foothills of the Himalayas, has common borders with Tibet and Nepal in the north, and is bounded by Bihar in the east, Himachal Pradesh, Punjab, Rajasthan and in the west and Vindhya Pradesh and Madhya Pradesh in the south The former three princely States of Tehri Garhwal, Rampur and Banaras have been merged and certain areas of Vindhya Pradesh and Rajasthan have also been absorbed



With a dry and extreme climate her rainfall averages below 40 inches The deficiency however, is partly made up by the Ganges, the Jumna and their canals making the basic occupation agriculture more or less profitable Uttar Pradesh is one of the less watered States of India The climate on the whole is cooler and drier than that of West Bengal, though in hot weather the heat is fiercer in the plains Uttar Pradesh is only just within monsoon region and rainfall consequently is not so heavy as it is in further east Compared to the other States in the Union, she thus stands first in her area under wheat maize, barley gram, sugarcane and sesamum, second in bajra linseed and rape and mustard besides producing considerable amounts of rice, jowar and small quantities of ragi cotton groundnut tea and tobacco She is besides the only opium producing area in the Union Her forest areas as yet amount to about 13 p c of the total and are situated mainly at the foot of the Himalayas Her mineral resources too have not been known to be very considerable, deposits of copper slate, glass sand sandstone and steatite being alone located She has also one of the best communication systems in the country, so far as it goes, since very ancient times, with the longest railway mileage of all the units of the Union at present

So far as industry is concerned, this is indeed one of the few industrially advanced territories with some modern and large scale and many old cottage industries She is particularly noted, however, for producing about 60 per cent of the total sugar in India and a large amount of leather and footwear, cotton and woollen textiles, paper and chemicals among other things

The cottage industries in U P occupy an important place in the economic life of its people All types and varieties of handicrafts or cottage industries exist and produce an immense range of articles both necessities and luxury Fabulous brocades and tissue of Banaras, carpets of Mirzapur, prints of Lucknow and Furrukhabad, ornamental brassware of Moradabad and Banaras, carved woodware of Saharanpur durries of Agra and Bareilly, glass bangles of Firozabad, gold thread embroidered 'zardozi' saris of Lucknow Bareilly and Agra chikan article and clay figures of Lucknow, fancy marbleware of Agra, pottery of Khurja moonj baskets of Naini, designed furnishing fabrics of Ghazipur and bordered sarees of Mau are not only known in India but in foreign countries as well

Medical Colleges—King George's Medical College Lucknow, Sarojini Naidu Medical College, Agra Ganesh Shankar Vidyarthi Memorial Medical College, Kanpur State Ayurvedic Medical College Lucknow

Districts of Uttar Pradesh Agra, Aligarh, Allahabad, Almora Azamgarh, Bahraich, Ballia Banda Bara Banki Bareilly, Basti, Bijnor, Budaun, Bulandshahr Dehra Dun, Deoria, Etah, Etawah, Faizabad, Furrukhabad, Fatehpur, Garhwal, Ghazipur Gonda, Gorakhpur, Hamirpur, Hardoi, Jalaun Jaunpur, Jhansi Kanpur Kheri Lucknow, Mainpuri Mathura, Meerut Mirzapur, Moradabad, Muzaffarnagar, Nainital, Pilibhit, Pratabgarh, Rae Bareli Rampur, Saharanpur, Shahjahanpur, Sitapur, Sultanpur, Tehri-Garhwal Unao, Varasani

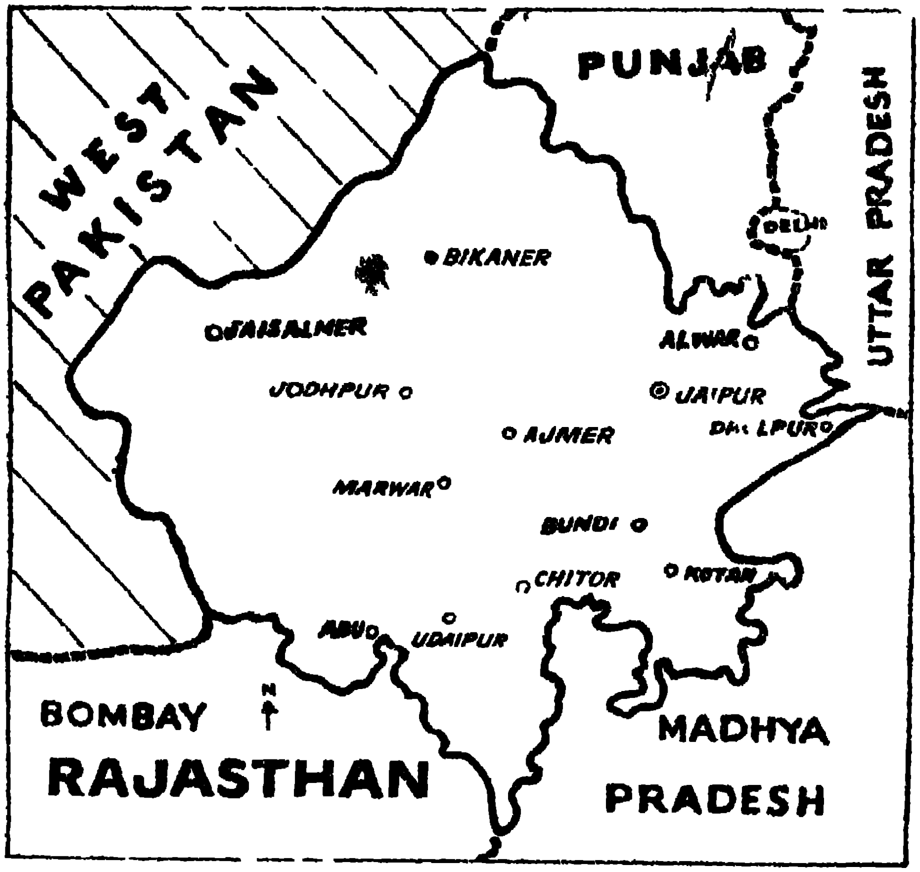
RAJASTHAN

Capital	Jaipur
Population	15,970 774
Area (sq m)	132 098
Literacy ..	8 95 p c
Density of Pop	121 per sq m
Principal Languages	Rajasthani & Hindi
University	Rajasthan (Jaipur)

Big Cities	
Jaipur	291,130
Jodhpur	180,717
Bikaner	117,113
Udaipur	89,621
Kotah	65,107
Alwar	57,868

The integration of Rajasthan came in the following ways *The first step* towards integration in Rajasthan was taken on March 17, 1948, with the formation of Matsya—a union of the four States of Alwar, Bharatpur, Dholpur and Karauli *The second step* came with the formation of Rajasthan—a union of the nine States of Banswara, Bundi, Dungarpur, Jhalawar, Kishengarh, Kotah, Pratapgarh, Shahpura and Tonk on March 25, 1948

—to which the State of Udaipur joined on April 18, 1948, thus transforming the union into the United States of Rajasthan. *Next, two most important steps* were taken in 1949—the first on March 30, 1949 when the four large States of Bikaner, Jaipur, Jaisalmer and Jodhpur joined the United State of Rajasthan, and the second on April 25, 1949, when Matsya also joined and there came into existence the United State of Greater Rajasthan. This Union of Greater Rajasthan was further enlarged by the accession to it of the State of Sirohi on January 25, 1950 The State of Rajasthan thus consisted of 19 old Princely States from January 25, 1950 to October 31, 1956. The *final step* was taken on November 1, 1956 when the State of Ajmer, the tehsil of Abu and the area of Sunel Tappa were integrated with Rajasthan Rajasthan came into being, with its status raised from that of a Part B State to a full fledged constituent State of the Indian Union.



Surrounded by Pakistan in the west and north west, this State has Punjab, U.P. and Madhya Bharat in her east and north-east, Bombay, to her south-west Rajasthan has a scanty rainfall, its most striking feature being extreme variation and unequal distribution The discovery of subsoil water in the Luni river in the near-desert zone promises to change the face of the earth in that region. Jowar, bajra, wheat, maize, barley, gram are the principal crops; certain amounts of cotton, sesamum, groundnut and rice being also grown.

Rajasthan occupies a prominent place on the new political map of India It is the third largest State in the country from the standpoint of area. The State is sparsely populated, the average density being 121 per square mile The percentage of literacy is as low as 8.5

The State is rich in mineral resources Two of Rajasthan's rich deposits are high class *limestone* and *gypsum* The limestone is spread all over the State Gypsum is one of the biggest gifts of nature to Rajasthan. In Jamsar and Lunkaransar, gypsum is obtained in large quantities and in purest form One of the important ores available in Rajasthan is buvthornum sulphate which is not found anywhere in India Except in Silun district, large resources of sodium sulphate and salt occur at Didwana and Sambhar of Rajasthan's valuable ores only next to Bihar which together supply mica to the outside world.

The most important industries are the weaving of muslin, dying and printing of cotton clothes manufacture of carpets, rugs and other woollen goods, enamelling, pottery ivory work, gota kinari (silver and gold laces), lacquer, wooden toys, hand made paper, papier mache toys embroidered shoes Jaipur is famous for enamelling work

Irrigation—On March 30, 1958, the excavation of the longest canal system in the world began at Talwara in Rajasthan This would be one of the biggest irrigation canals in the world The Rajasthan canal project comprises a 426-mile long canal and about 500 miles of branches exclusive of distributaries and minors The canal will take off from the Harike Barrage and will carry 18,500 cusecs The main canal is in two parts: (a) Rajasthan feeder 134.2 miles long and 23.4 miles in Rajasthan. (b) Rajasthan canal 291.6 miles long lying entirely in Rajasthan territory. All other canals of Rajasthan—(1) *Ganga Canal* opened at the Shirpur Headworks, Bikaner The Ganga Canal takes off from left bank of the river Sutlej at Hussainiwala headworks (near Ferozepur) and forms part of the Sutlej Valley canals It passes through the Punjab for 74 miles and enters Bikaner territory (2) The Planning Commission has sanctioned the estimates of Rajasthan and Uttar Pradesh Governments amounting to Rs. 14,76,000 for the construction of a new feeder from the Agra Canal, which on completion will irrigate at least 18,000 acres annually in Bharatpur, being known as *Bharatpur Project* (3) The Chambal Project, a multipurpose scheme is being executed jointly by the Madhya Pradesh and Rajasthan It envisages construction of three storage dams and one barrage to trap almost the whole of the normal annual flow of the river The first of these, Gandhisagar, is under construction

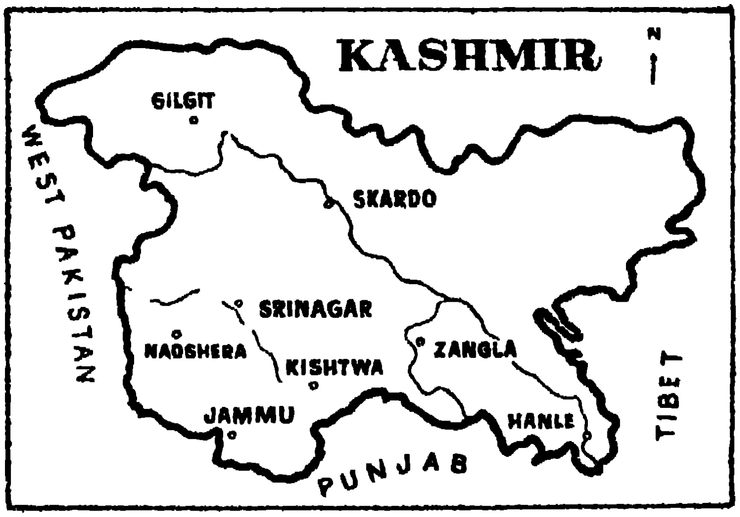
Districts of Rajasthan—Ajmer, Alwar, Banswara, Barmer, Bharatpur, Bhilwara, Bikaner, Bundi, Chittorgarh, Churu, Dungarpur, Ganganagar, Jaipur, Jaisalmer, Jalore, Jhalawar, Jhunjhunu, Jodhpur, Kotah, Nagpur, Pali, Sawaimadhopur, Sikar, Sikar, Tonk, Udaipur.

JAMMU & KASHMIR

Capital	.. Srinagar	Area (sq m.)	85,861
Population	46,10,000	Principal Languages	Kashmiri, Urdu and Dogri
University	.. Jammu & Kashmir		

Jammu and Kashmir the northernmost State of India bordering on the U.S.S.R., Sinkiang and Tibet in the north and north-east and Pakistan on the west and south-west has an area of 85,861 sq. miles. The altitude in the valley varies from 5,000 feet above the sea level. According to estimate of 1950 the total population was [illegible] million.

The country is almost entirely mountainous and it may be geographically divided into three areas Tibetan and semi-Tibetan tracts in the north containing the districts of Ladakh and Gilgit the middle region of the Happy Valley of Kashmir and the large level areas of Jammu in the south. This mountainous State covered on its north by snow for about half the year and with extensive rich forests in the valleys of the Chenab the Jhelum and the Indus has its chief crops in rice, wheat, maize, barley, oil seeds, cotton, tobacco and saffron. The State has a large amount of fruits for export principally walnuts, almonds, pears and apples. The mineral resources of the State as yet unexplored are large indeed, including among them coal, zinc, copper, lead, bauxite, fuller's Earth, lime, kaolin, asbestos as well as gold and sapphire. Her silk filature industry is the biggest in the world and equally famed are her shawls, carpets and wooden carvings. Kashmir acceded to India on October 26, 1941. By the new constitutional set up the office of the Maharaja has been eliminated from Kashmir and new Head of the State has been elected for a term of five years to be recognised by the President of India on the recommendation of State Legislative Assembly. He holds office during the pleasure of the President.



Land Reforms—The land reforms in Kashmir are more revolutionary than anywhere in India. A ceiling of 22·75 acres has been imposed on all agricultural land. Some 9,000 landlords owning between them 8,00,000 acres (out of a total cultivated area of 24,00,000) have had to surrender 4·5 lakh acres of surplus land over and above the ceiling. For this, they have received no compensation The old and hated levy of food grains from peasants known as *mujwaza* has been abolished since 1953

Education—Kashmir is the only State in India where education is free at all stages, including the university No tuition fee is charged in any Government school or college

Since 1947 Jammu & Kashmir stands practically divided with two-thirds of territory on the Indian side and one-third in the occupation of Pakistan

The new constitution of Kashmir was passed on Nov 17, 1956, by the Kashmir Constituent Assembly which declares that Jammu & Kashmir is and shall be an integral part of India Based on the Parliamentary system of Government, the Constitution promises a socialistic order of society and thus brings the State's policy in line with the aims and objects of the Indian Constitution as a whole

The land route begins from Pathankot, the railway terminus of Northern Railway The distance from Pathankot to Srinagar *via* Jammu is [illegible] miles The first [illegible] miles up to Jammu are by a nicely metalled and tarred plain road and the rest lead through mountainous and picturesque scenery The Indian Air Lines are operating passenger service between Delhi and Srinagar The opening of Banihal Tunnel on 22nd December, 1956 was an important event in the history of Kashmir The physical barrier separating the valley from the rest of the country has been overcome and a permanent link between Kashmir and the rest of India forged.

The population of Jammu & Kashmir is mainly Muslim, 75 p c are Muslims and 25 p c are non-Muslim

Industries—Woollen textile manufacture is the biggest single industry in the State The Kashmir woollens such as shawls carpets, numdas and gabbas are world-famous After this comes silk industry Kashmir filatures are the largest in the world for single unit production and produce one of the finest quality silks Papier mache silver wares and wood carving are also prominent industries of the State Other minor industries are forest products such as timber herbs furs and skins and fruits and vegetables

The minerals found in the State are coal, lignite bauxite manganese, copper chromite ochre gypsum marble slate

Tourist traffic is one of the main sources of income both to the State and the people About 50,000 people visit the place annually

The Districts of Jammu & Kashmir Anantnag Astore Baramulla, Chenani Jammu Kathua Ladakh Mirpur Muzaffarabad Poonch Reasi, Udampur

MYSORE

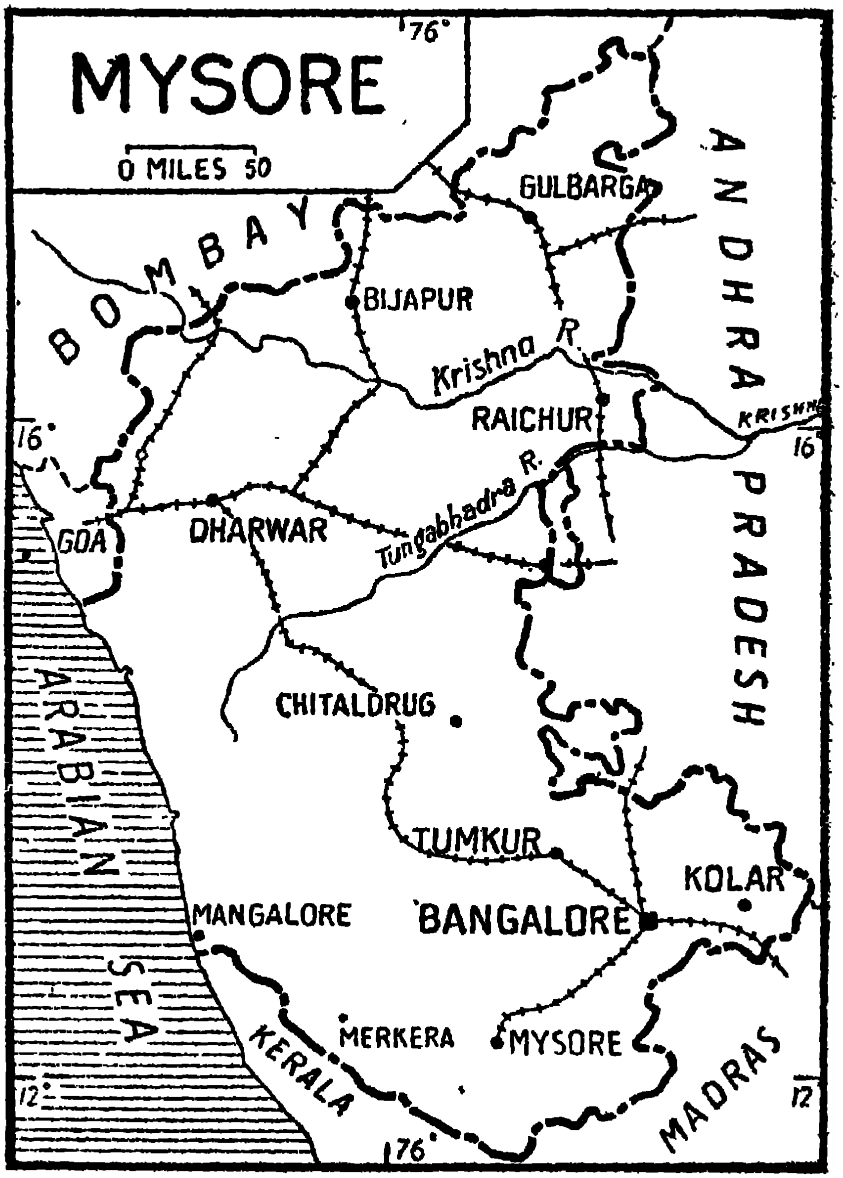
Capital	Bangalore	*Big Cities*	
Population	19,401,193	Bangalore	778,977
Area (sq m)	74,861	Mysore	244,323
Literacy	19 2[illegible] p c	Kolar Gold Fields	159,084

Language .. Kannada
Density of Pop. 259 per sq. m.
Universities .. Mysore, Karnatak (Dharwar)

Cities:

Hubli	129,600
Mangalore	117,083
Bellary ..	70,322
Davangere ..	56,018

The new Mysore State, which came into being on November 1956, consists of 19 districts, roughly covering an area known in our ancient classics as 'Karnataka.' Kannada which is derived from the word Karnataka is the regional language of the State. It is not 'Canarese' which had its origin on the west coast of India during the early Portuguese contact. The new State is fortunate in getting a fairly long coast-line by the Arabian Sea on the west. A major length of Western Ghats is here and there are the rich plains on the east.



Coorg, which now becomes a district of Mysore, covers an area of 1,586 sq. miles, mainly on the Western Ghats. It is rich in scenic beauty and natural resources. Coorg's evergreen forests spread over an area of 517 sq. miles. Coorg's fauna is also magnificent. It is the habitat for tigers and elephants, deer and rabbits. Wild life can be seen in its natural habitat, specially at the Nagerhol game sanctuary exceeding over an area of 111 sq. miles. Coorg is essentially an agricultural country. Almost all its hill slopes grow coffee, cardamom, pepper or orange, while almost all its valleys and plains produce paddy. Coorg's coffee accounts for one-third of India's total production.

Agriculture forms the main occupation of more than three-fourths of the population.

Physically, the original Mysore divides itself into two regions—the '*Maidan*' or plain country, comprising roughly the districts of Bangalore, Tumkur, Chitaldrug, Kolar, Mandya and Mysore, and the '*Malnad*' or hill country, comprising the districts of Chickmagalur, Hassan and Shimoga. Rainfall is heavy in the Maland tracts, and dense evergreen forests abound in big games forming their characteristic features. The great part of Maidan country is cultivated.

Language—Kannada is the principal language and the mother tongue of 62·2 p.c. of the population. It is the language of administration and of instruction and is the principal language in all districts except Kolar where it is second to Telugu. There are about 16 other languages spoken by minor groups making up a total of 37·8 per cent.

Industries—Some of the main industries of Mysore may be mentioned here. *Sandalwood* is one of the most valuable productions of the State, and in fact it holds monopoly in the world market. The Government Sandalwood Oil Distillery is the biggest of its kind in the world, where Sandalwood oil is distilled under the most stringent and scientific control. Other important industries are Iron and Steel Works at Bhadravati, the Cement Works at Sahabad and Bhadravarti, Match Works at Shimoga, Woollen and Silk Mills at Bangalore and Mysore, Paper manufacturing at Bhadravati and certain industries of stratagic importance, such as, Hindusthan Aircraft, Hindusthan Machine Tools, Bharat Electronics and Indian Telephone Industries, Government Silk Weaving Factory, Mysore Lamp Works.

Forests—The forests cover an area of 60,91,953 acres. Sandal tree is a state monopoly yielding the largest share of forest revenue. Bamboo abounds in large forests and is one of the most valuable products. In Mysore, North Kanara district is rich in forest wealth. The slope of Western Ghats are clothed with evergreen vegetation with very heavy forests. Good timber-yielding trees and bamboos are found in abundance. Coorg, the land of honey, coffee and orange, is rich in forest wealth. The all-pervading forests yield different varieties of timber-yielding trees. South Kanara is essentially a forest district.

Tourists' Paradise—From many points of view, the State is a tourists' paradise, with lovely cities, enriched by shrines and marvels of sculpture.

Travel is easy and pleasing. The climate is salubrious. Communications by road as well as by railway are well maintained throughout State.

Of all show places in Mysore, the *Jog Falls* take the pride of place. The Jog Falls are formed by the river Sharavati falling into a mighty chasm about half a mile wide and 850 ft deep. They are four in number. The places of interest at Bangalore are Lal Bagh, Indian Institute of Science, Raman Research Institute, Mental Hospital, innumerable industrial undertakings owned and managed by the National Government, Cauvery Falls at Sivasamudram, Temple of Ranganathswami, at Srirangapatna. The city of Mysore with its palace, Chamundi Hills, Krishnarajasagar which is the second biggest artificial lake in the world, Brindaban gardens is also an important place of show. The Mysore State possesses many beautiful temples such as, Chennakesava Temple at Belur, Hoysaleswara Temple at Halebid, Nandi Hill containing some picturesque Hindu shrines, Gommateswara Statue the longest standing statue of Asia. Bijapur, the ancient capital of the famous Adil Shahi kings possesses many buildings of historical, and archaeological interest. Chief among them is Gol Gumbaz the mausoleum of Mahomed Adil Shah. The dome of the Gumbaz is considered largest in the world, being 2000 feet larger than the great cupola of the Pantheon. Bijapur district also contains caves at Badami.

Cottage Industries—Main cottage industries are—leather stitching and ornamental work, brass work, pottery, weaving, carpentry, coir industry, sandal work and ivory inlay works, mat weaving, flaying, hand made paper, rattan industry. The cottage industries of Coorg is bee keeping.

Irrigation and Power Projects—The following are the projects under execution.—*Bhadra Reservoir Project, Tunga Ancient Project, Nugu Reservoir Project, Ambligola Reservoir Project and Sharavathy Valley Hydro-electric Project.* Bhadra Reservoir Project is to construct a dam across Bhadra river near Lakka valley in Chickmalghur district. Tunga Ancient Project is to construct a masonry or a flow anicut 1,200 ft long across the Tunga river about seven miles from Shimoga. Nugu Reservoir Project is to construct a Dam 1,440 ft high across Nugu river. Ambligola Project is to construct a dam 57 ft high across Salur Halla in Shimoga district. Sharavathy Valley Project is a hydro-electric project to construct a dam across Sharavathy river for the development of 7 [illegible] lakh kw at the final stage.

Districts of Mysore—Bangalore, Belgaum, Bellary, Bidar, Bijapur, Chikmagalur, Chitaldurg, Coorg, Dharwar, Gulbarga, Hassan, Kanara, Kolar, Mandya, Mysore, Raichur, Shimoga, South Kanara, Tumkur.

KERALA

Capital	.. Trivandrum	*Big Cities*	
Population	.. 13,549,118	Kozhikode	.. 158,724
Area (sq m)	.. 14,937	Trivandrum ..	.. 186,931
Literacy	.. 50·37	Alleppey ..	.. 116,287

Principal Language	. Malayalam	Mattancheri	73,908
Density of Pop	. 907 per sq m	Trichur	69,515
University	.. Kerala	Palghat	69,504
		Quilon	66,126
		Ernakulam	62,783

In the reorganised map of south India Kerala State occupies a strategic position Nestling amidst the blue waters of the Arabian Sea and the tall ranges of Western Ghats it is a thinly long stretch of coastal territory from Kasaragode in the north to Trivandrum in the South It is bound on the east by the Western Ghats and on the West by the Arabian Sea The distance from south to north is little over 400 miles and maximum breadth east to west is about 80 miles Kerala is the smallest of the 14 States in the Indian Union Kerala representing the Malayalam speaking areas of the country consists of the territories of the previous State of Travancore-Cochin except for four taluks of the Trivandrum district and a part of Shencottah taluk of Quilon district It takes over Malabar district (without Laccadive and Minicoy Islands) and the Kasaragod taluk of South Kanara (except Amindivi Islands) from Madras State

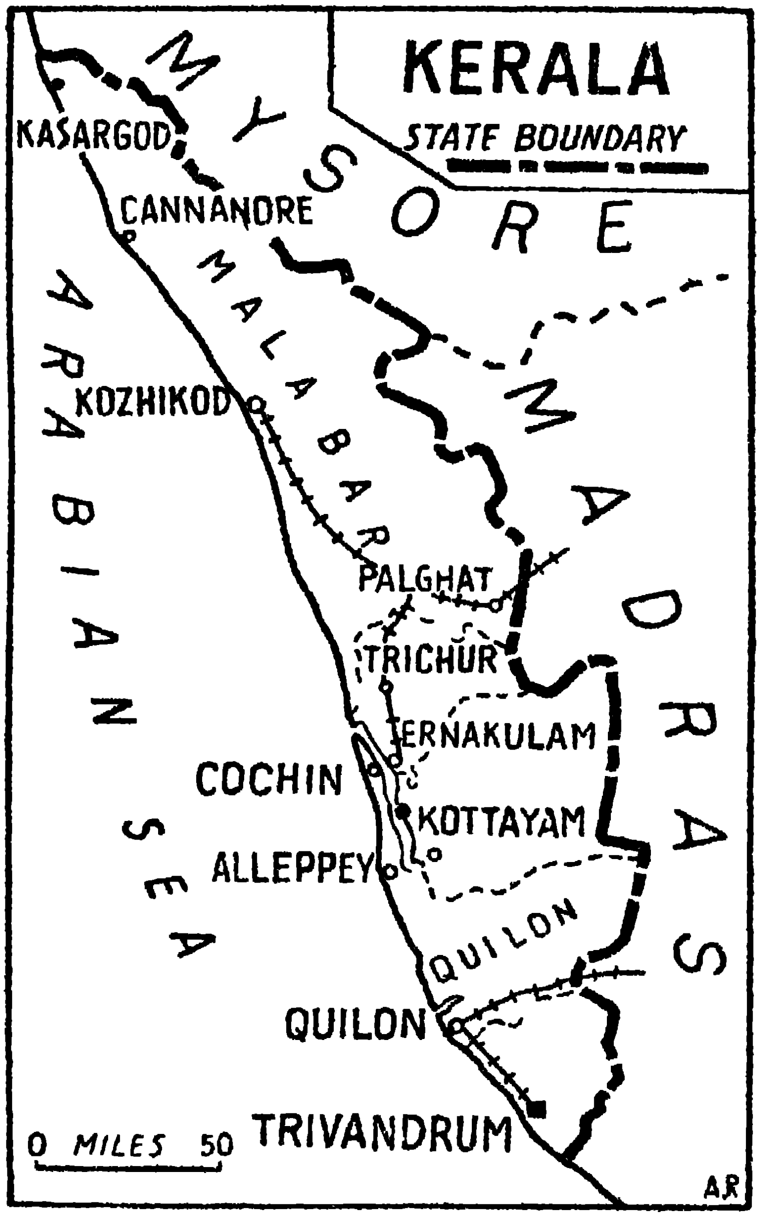
Area & Population—Kerala has an area of about 14,937 square miles The State has a population of about 136 lakhs i.e., 3.8 p.c. of the total population of India the density of population being higher than that of any other State in India There are 907 persons per sq mile of the total population 13.1% is urban and 86.9% rural

Literacy and Education—Kerala stands foremost among the Indian States in literacy and educational advancement The literacy of the State is worked out at 50.37 p.c. of the total population According to the last census the p.c. of literacy in Travancore Cochin is 53.7 the percentage of literacy for male being 64.47 and that of for female 43.23 In Malabar area literacy is at lower level i.e. 31 per cent

Agriculture The chief agricultural products of the State are rice, tapioca coconut arecanut oilseeds pepper sugarcane rubber tea coffee, cardamon etc The State is famous for its hill products The chief articles of export among agricultural crops which contribute to a large share of India's foreign exchange earnings are cashew kernels rubber pepper tea, cardamom and other spices The long coastline enables the State to maintain a flourishing fishing industry

Forests—The State of Kerala is rich in forest wealth About 3,052 sq miles of the Kerala area are reserve forests The forests of Kerala are noted for their resources of timber including teak ebony rosewood and blackwood and varieties of soft wood Nearly 600 species of timber are grown in the forests

Mineral Wealth—Next to Bihar Kerala possesses the widest variety of economic mineral products among the Indian States Some of the minerals occur in much greater abundance in this region than in Bihar The beach sands of Kerala contain the much valued and strategic mineral monazite, besides zircon sillimanite, etc The extensive white clay deposits of Kerala contribute to the flurishing industry and abundant resources of mica, graphite, limestone, quartz sand, lignite and a host of other minerals of commercial importance mark out this region as rich field of commercial importance



Industries – The abundance of natural resources, the availability of cheap electric power and the existence of numerous rivers and waterways have contributed to the industrial advancement of Kerala Most of the major industrial concerns are either owned or sponsored by Government. The Government owns seven industrial concerns and have substantial shares in more than 40 concerns Other factory industries are rubber, tea, tiles, oil, textiles, ceramics, fertilizers, chemicals, sugar, cement, rayon, glass, matches, monazite, ilmenite, rare earths, shark liver oil etc.

Cottage Industries—Among the cottage industries, coir spinning and handloom weaving are the most important ones. Other industries are the village oil industry, ivory carving, furniture making, bell metal, brass and copper ware, leather goods, mat making, rattan work, bee keeping, pottery etc.

Major Irrigation Works—There are at present eight major irrigation works costing about 1,447 lakhs and catering to the need of a total area of 2,81 lakhs acres of paddy fields. These are (1) *Malampuzha Project* (2) *Walayar Reservoir Project* (3) *Mangalam Reservoir Project* (4) *Peechi Scheme* (5) *Chalakundy (first stage) Scheme* (6) *Vazhani Scheme* (7) *Kuttanad Scheme* (8) *Neyyar Scheme*.

Tourist Attractions—Charmingly set between the Western Ghats and the blue waters of the Arabian sea, bedecked with sylvan splendour of a monsoon, Kerala is a lovely country with its sparkling streams and shimmering backwaters and the natural beauty of a palm-crowned country sites.

Over 2,000 ancient temples and a large number of churches and mosques exist side by side. Kerala offers a variety of specimens of ancient art and architecture. The Padmanabhapuram Palace and the Mattancherry Palace contain examples of the major arts and architecture, sculpture, wood carving and mural painting. Up in the hills, on the shores of the Periyar Lake is the Royal Game Sanctuary, where wild life can be seen in its natural habitat.

Districts of Kerala—Alleppey, Cannanore, Kottayam, Kozhikode, Palghat, Quilon, Trichur, Trivandrum.

DELHI

Capital	Delhi	Principal Language	Hindi, Urdu and Punjabi
Population ..	[illegible]	Density of Pop.	3,044 per sq. m.
Area (sq. m.) ..	513	*Big Cities*	
Literacy ..	52.54 p.c.	Delhi	[illegible]
University ..	Delhi	New Delhi	[illegible]

Delhi, the imperial city under many a dynasty in the past centuries, with its surrounding districts was constituted as a separate administrative unit for the seat of the Central Government of India in 1911. The seat of the Government was shifted since then to the new and modern city of New Delhi nearby. New Delhi is a city, Delhi is a district and Delhi is a State. This smallest State of the Union has an area of 513 sq. miles with a population of 1,744,072 in 1951. Placed 700 ft. above sea level and the focal point of all railways, she has an arid territory and an extreme climate. An enclave of territory in Punjab bordering on U.P., her average rainfall is about 26 inches. For her small area, she produces a considerable amount of gram, wheat, bajra, jowar, barley and some amount of sugarcane, rape and mustard and tobacco. It has cottage industries like jewellery, brass and copper wares, ivory work, pottery, weaving, gold and silver embroidery, famed of yore. In recent time modern factories have been set up for the production of cotton textiles, and chemicals among other things.

Under the Constitution of India Delhi is a Union Territory. The Centre exercises control over the Territory through a Chief Commissioner appointed by it.

Under the States Reorganisation Act the President has constituted an Advisory Council for Delhi which is a Union Territory. The Council is associated with the Minister of Home Affairs who is responsible for the administration of the Union Territories. The Council consists of all members of the Parliament representing Delhi, the Chief Commissioner of Delhi, the Vice-Chancellor of the Delhi University, President of the Delhi Municipal Committee and the Senior Vice-President of the New Delhi Municipal Committee. Besides there are two Advisory Boards to advise Chief Commissioner in regard to industrial matters and public relations.

Industries—The main industries are cotton mills, hosiery, pottery, flour mills, jewellery, leather goods and tanning, vegetable oil mills, etc.

The Delhi Municipal Act 1957 has been passed by the Parliament on December 17 1957 as a part of the implementation of the scheme for the reorganisation of States. This Act establishes a municipal corporation for Delhi excluding cantonment area and some parts of New Delhi (including the Diplomatic Enclave) and provides for a unified and integrated civil administration for the urban as well as rural areas. The Delhi Development Act has also been passed in 1957. Under this Act the Delhi Development Authority will carry out the civil survey of and prepare a master plan for Delhi and shall promote and secure the developments of Delhi according to Plan.

PONDICHERRY

Area	1[illegible]6 sq. m.	Capital	Pondicherry
Population	3171[illegible]		
Principal Languages	French & Tamil		

Following an agreement with the Government of France the Government of India took over on November 1 1954 the administration of the territories formerly known as the "French Establishments in India." This Treaty is yet to be ratified formally by the French Government. Meanwhile, the administration of the State is being carried on by the Government of India through the Chief Commissioner and an advisory body of six selected Councillors.

History of the Merger Movement—With the achievement of Indian freedom the popular urge in the French Settlements for freedom from foreign rule became more pronounced. On Indian Independence Day, the citizens of French India at a public meeting unanimously declared themselves in favour of reunion with India.

As early as June 1948, India and France agreed on a referendum to decide the future of the Settlements. Various municipal communes declared themselves in favour of reunion but conditions created by certain refractory elements vitiated the possibility of having a fair and impartial referendum.

In April 1951 a team of neutral observers appointed by the French themselves confirmed this and noted the serious difficulties which prevented free popular consultation. Prime Minister Nehru declared in October 1952 that in view of the violence prevailing in the Settlements there was an end of the plebiscite business.

Prolonged negotiations between India and France, however, resulted in no agreeable solution over the question of popular consultation provided for in the French Constitution with regard to cession of territories. The freedom movement had by then gained momentum and in March 1954 all French India councillors and Mayors of communes unanimously demanded merger of the Settlements with India without a referendum.

Another effort was made by India to reach agreement for peaceful transfer of the Settlements. India's mission to Paris to reach a settlement in June 1954, however, failed over the question of transfer of control over police during the interim period. Later, fresh negotiations were, however, started, which resulted in the joint declaration by India and France on October 13, 1954.

In pursuance of that declaration the Congress of elected members of Municipal Communes and the Representative Assembly was convened at Kizhoor to get popular verdict in favour of merger with the Indian Union, which passed a resolution by overwhelming majority for the merger with India. On November 1, 1954 the *de facto* transfer of French Settlements in India with the Indian Union came into force following an agreement between the Government of India and France. The treaty of cession was signed in Delhi on the 28th May, 1956 and on its ratification by both the Governments, the *de jure* transfer will take place.

The first general elections after *de facto* transfer were held on universal adult franchise for the 39 seats in the State Representative Assembly and 200 seats in the 16 municipal councils.

The State is directly administered by the Government of India through a Chief Commissioner nominated by them. There is an advisory body consisting of six elected Councillors, roughly corresponding to Cabinet Ministers in the other States of India.

The State of Pondicherry consists of—

(1) On the Coromondel Coast—(*a*) *Pondicherry* together with adjoining territory divided into 8 communes, (*b*) *Karikal* and dependent districts divided into 6 communes.

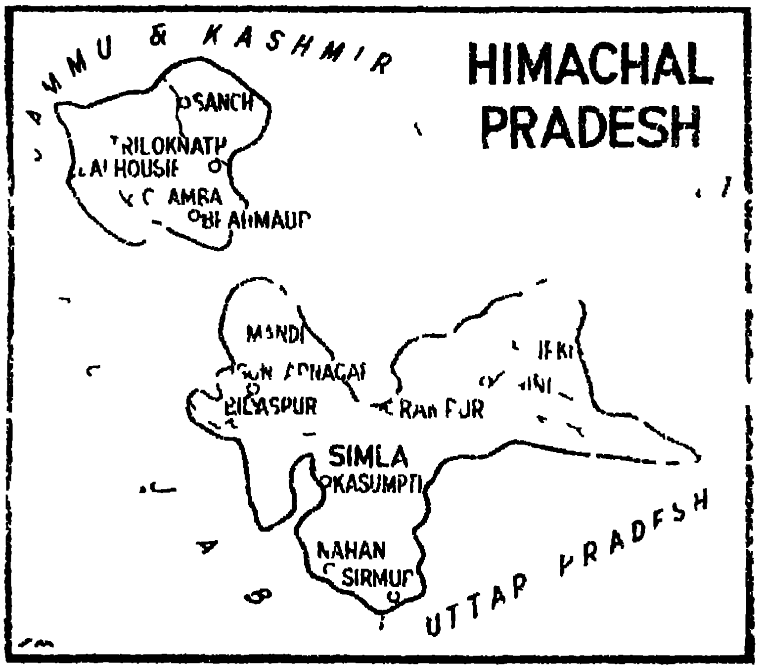
(2) On the Andhra Coast—(*a*) *Yanam* with dependent villages.

(3) On the Kerala Coast—*Mahe* and adjoining territory.

HIMACHAL PRADESH

Capital	Simla	Area (sq m) ..	10,922
Population	. 11,09,466	Literacy ..	7.71 p.c.
Principal Languages	Hindi & Pahari	Density of Pop .	102 per sq m.

Himachal Pradesh, which was created on April 15, 1948, comprises of former 21 Hill States and their 9 tributaries nestling in the foothills of the Himalayas between Kashmir in the west and Uttar Pradesh in the east.



It has an area of 10,922 sq miles with a population of 1109466 Biggest of the merging State was Mandi It was inaugurated on 15th April, 1948. On July 1954 State of Bilaspur was merged with the Himachal Pradesh under the Himachal Pradesh and Bilaspur Act of 19[illegible]3 Bilaspur has an area of 450 sq miles and a population of 1,26,0[illegible]9 Heavily wooded and assured of high rainfall, Himachal Pradesh has two blocks, one to the west of Punjab bounded by the U P on the west and at the foot of the Himalayas and the other to the north of Punjab and bounded by Jammu and Kashmir. Agriculture is the main stay of more than 90 p.c of the population The average holding of a family of five is not more than three acres. Wheat, maize, barley, rice, ragi, gram and sugarcane and potato are its principal crops ; tea of small quantities being also grown 35 p.c of the land is under forests. Forests, which occupy about 35 per cent of the total area of the Pradesh, play a vital roll in the economy of the people. They provide employment to nearly 5 lacs of the population directly or indirectly, be-sales being the material source of income to the administration. This State's forests contain the largest quantities of coniferous timber in northern India and they are the main source of revenue in the State. The average outturn of timber is about 34 lakh cubic ft. per annum. Potato is the chief cash crop. The State has established itself as a vital source of potatoes, specially seed potatoes for the plains of India. The territory at present produces 2,200 tons of seed potatoes, which supply 2 p.c. of India's total demand. By the end of second Five Year Plan, it is proposed to increase the production of seed potato to 12,600 tons per year.

The lower elevations grow in abundance sub-tropical fruits and in the mid-hill elevations where winter conditions are milder stone fruits like peaches, plumes, apricot and pomegranates thrive. In the higher elevations of about 6000 feet a variety of juicy and coloured apples and cherries grow. The delicious apple of Himachal Pradesh is famous all over India. The cultivation of dry fruits like raisins, grapes and walnuts, is being undertaken in the Chini area bordering on Tibet. There are three fruit research stations started in [illegible] Mashobra (for temperate fruit), Dhaula Kuan (for sub-tropical fruit) and Chini (for dry fruits).

Cattle, sheep and goat rearing is a major cottage industry in the Pradesh. The wool economy is the main stay of the people living in the higher regions of Chamba and Pangi and provides a subsidiary source of income to a vast majority of population though quality of the wool is low. At present 12 lakh lb. of wool are produced annually in Himachal Pradesh. The average wool production per sheep per year being only one lb. as against 15 lb. in Australia.

Historically Himachal Pradesh States were founded by Rajput immigrants in the 1[illegible]th and 15th centuries who had sought these Himalayan retreats to preserve their cultural freedom. Their cultural tradition brought from Rajasthan greatly contributed to the creation of Kangra School of Art, which marked a special phase of Indian painting that flourished between 1[illegible]56 and 1850.

The newly formed State with the merger of Bilaspur is provided with a Territorial Council with 41 members.

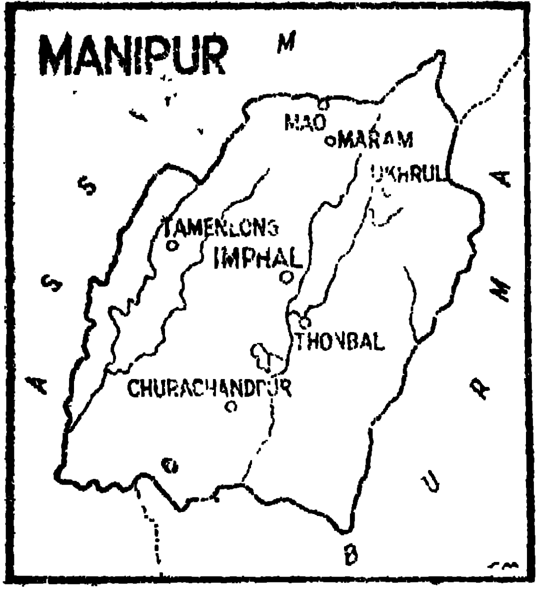
The names of Indian States that compose Himachal Pradesh are Chamba, Sirmur, Suket, Baghal, Baghat, Balsan, Bilaspur, Bushahr, Bhajji, Beja, Darkoti, Dhami, Jubbal, Keonthal, Kumharsain, Kunihar, Kuthar, Mahlog, Mangal, Sangri, Tharoch and Mandi. The tributaries are Delath, Dhadi, Ghund, Khaneti, Koti, Madhan, Rawingarh and Theog.

The districts of Himachal Pradesh—Chamba, Mandi, Sirmur, Mahasu and Bilaspur.

MANIPUR

Capital—Imphal	*Literacy*—11.41 p.c.
Population—577,635	*Density of Pop.*—67 per sq. m.
Area (sq. m.)—8,629	

Manipur is a small State lying in the east on the Indo-Burma border with an area of about 8,629 sq. miles and a population of 5,77,635. The whole of the State is made up of two distinct regions—the Central Valley covering an area of 700 sq. miles and the surrounding hill region comprising the rest of the area.



A princely State until 1949, Manipur was integrated with the Indian Union when it came under the administration of the Centre. After that it became a Part 'C' State and later with the passing of S. R. Act, it became a Union Territory.

Under the Reorganisation of States Act of 1956, the President has constituted Manipur Territorial Council from 15th August, 1957, which is associated with the Chief Commissioner of Manipur in the discharge of his administrative functions. It consists of 30 elected and two nominated members.

Manipur has a very slender link with India. The only communication with the rest of India with the railhead at Dimapur and the Imphal-Calcutta Air Service, both of which are liable to interruptions specially during the monsoons.

Agriculture is certainly the most important economic occupation of the Manipur people. But it does not engage all the people all the year round. Accordingly, there has been certain long established industries in Manipur, such as handlooms, sericulture and various other handicrafts. Handloom industry is the largest single cottage industry in Manipur. Every woman is weaver irrespective of caste and creed and every house has a weaving unit. This industry provides direct or indirect part-time employment to nearly three lakhs of people, i.e., 50 p.c. of the population of the territory.

The sericulture industry is also one of the oldest cottage industries of this territory. Besides handloom and sericulture, there are also various other small industries run on a cottage scale. These small-scale industries are carpentry, blacksmithy, brick-making, bell-metal works, leather works, bamboo and cane works, etc.

The Central valley of Manipur is inhabited by Meiteis, Manipur Mussalmans, Lois and various other smaller communities including tribals who have migrated from other areas more recently and settled there. The hill area of over 7,900 sq. miles is inhabited by Nagas and Kukis and other hill tribes. The people generally bear traits of Mongolian features. The State adjoins areas inhabited by people of the Mongolian stock. There is a so-called belt of unadministered area between India and Burma beyond certain portion of the Indian border.

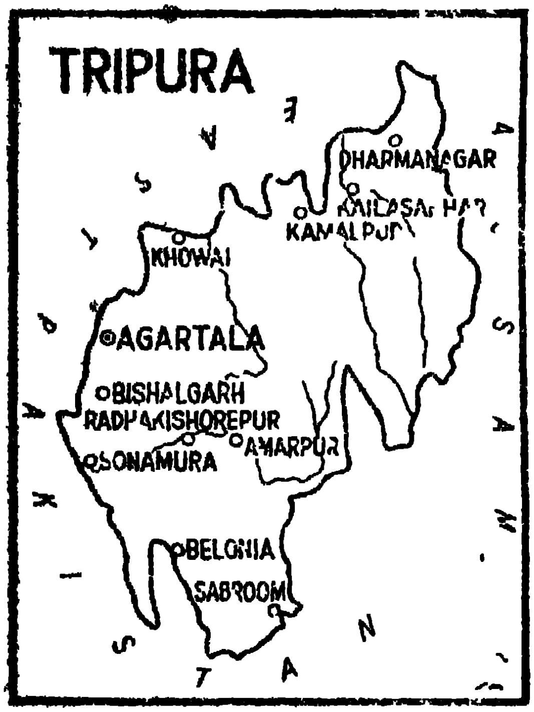
Manipur is also well-known to everyone in connection with the justly famous Manipur dances. Dances form an inseparable item of the social life of the common Meitei who has given dance and music a dominant place in life.

The following are *Subdivisions of Manipur*—(1) Hills district consisting of Churachandpur, Mao, Tamenlong, Tengnopal and Ukhrul; (2) Manipur Plains District consisting of Jiribum, Sadar, Thoubal

TRIPURA

Capital	.. Agartala	Area (sq m.)	4,032
Population	.. 639,029	Literacy	15.52 p.c.
		Density of Pop	159 per sq m.
Principal Language	.. Bengali		

Tripura, an ancient hilly State lying to the south west of Assam and protruding into East Pakistan, has an area of 4,032 sq miles with a population of 639,029 according to 1951 census. Very rich in her forest resources as also mineral resources, her agricultural produce includes rice, jute, tea, sugarcane, cotton, oilseeds, etc. Besides handwoven cotton goods of unique designs the State has at present very few industries. Her only means of communication now with the Union are by air and through a newly constructed road through Assam.



Tripura's frontier with Pakistan runs to about 720 miles on the north west, west, south and south east. Its opening with India runs to about 180 miles.

There are many aboriginal races in Tripura, among whom may be mentioned Chakmas, Riang, Tipras, Kukis, Mags, etc.

A Territorial Council of Tripura has been inaugurated from the 15th August, 1957. It consists of 30 elected members and two nominated members.

Divisions of Tripura—Agartala, Amarpur, Belonia, Dharmanagar, Kailashahar, Kamalpur, Khowai, Sabroom, Sonamura, Udaipur.

LACCADIVE, MINICOY & AMINDIVI ISLANDS

Capital*	Kozhikode
Area	42 sq. m.
Population	21,035
Literacy	15·23 p.c
Density of Pop.	501 per sq m.

With the reorganisation of States, the Government of India have taken over the administration of the Laccadive, Minicoy and Amindivi Islands, a small sprawling group of coral islands in the Arabian sea, lying between the latitudes of 8° and 12° North lat With effect from 1st November, 1956, it is a Union Territory under an Administrator with temporary Headquarters at Kozhikode

There are ten inhabited islands out of a total number of 19 islands; Minicoy Kalpeni Kavarathi, Agathi and Androth lie in the Laccadive Group and Amini Kadamath, Kiltan Chetlath and Bitra in the Amindivi Group. Before the reorganisation, the Laccadives and Minicoy islands were part of Malabar District and the Amindivi Islands of the South Kanara District, forming part of the composite state of Madras The islands lie from North to South, Minicoy being the southernmost and Chetlath the northernmost; they are within 50-80 miles away from the nearest island and are 175 to 250 miles off the Malabar and South Kanara coast

The Laccadive islands were ruled by the Cannanore Rajas till 1875, subject to payment of assessment to the British Between 1875 and 1908 the islands were under attachment and were practically governed by the British In 1908 the phantom sovereignty of the ruling family was also surrendered to the British The Amindivi Islands were under the British right from the fall of Srirangapattam in 1799 Till the Appointed Day, i.e, 1-11-1956, for purposes of administration the Laccadive islands were under the administrative control of the Collector of Malabar whereas the Amindivi islands were under the control of the Collector of South Kanara. The islands have been constituted as a Union Territory with effect from 1-11-1956 These Islands are now administered by the Central Government, through their representative, designed as Administrator, Laccadive, Minicoy and Amindivi Islands, who is for the time being stationed at Kozhikode The total area of the islands is 42 sq miles and population 21,035 according to 1951 census

The abundance of coconut trees constitute at once the adornment as well as the wealth of the island. The islands offer little scope for paddy cultivation and the main item of agricultural development consists of increasing coconut yield The main occupations of the island are fishing and copra industries

The inhabitants of these islands are Muslims to a man Originally Hindus, the Malabar and South Kanara islanders appear to have been converted into Muhamadanism some time in the 14th century. In appearance and dress, the islanders, except those of Minicoy, are indistinguishable from the Moplahs of Malabar and in customs and manners almost the same.

Their dialect is old Malayalam with local variations. The Minicoites ar more akin to the Maldivi inhabitants and their language, Mahl is sai to be allied to primitive Sinhalese.

The major income from the islands is coir monopoly run by th Government.

ANDAMAN & NICOBAR ISLANDS

Capital	Port Blair	Literacy	25.77 p.c.
Population	30,971	Density of Pop.	10 per sq. mi.
Area (sq. m.)	3,215		

The Andaman Islands lie in the Bay of Bengal 120 miles from Cap Negrais in Burma, 780 from Calcutta, and 740 from Madras. Five larg islands closely grouped together are called the Great Andamans and to th south is the island of Little Andaman. There are some 204 islets, the tw principal groups being the Ritchie Archipelago and the Labyrinth Islands. The total area is 3,215 sq. miles. The Great Andaman group is about 219 miles long and, at the widest, 32 miles broad. The group, densely wooded contains many valuable trees, both hard wood and soft wood. The bes known of the hard woods is the padauk or Andaman red wood, gurjan i also well known and is in great demand for the manufacture of plywood. Large quantities of soft wood are supplied to match factories. Spread ove 210 islands—about 1,500 sq. miles are estimated to contain forests othe than mangrove. Of the 4 million cubic feet of timber annually harveste from these forests nearly half is carried in log form to feed the plywood match wood and packing case industries and to meet the demand of India Railways for coach building. The balance is utilised by the saw mills i the islands.

The islands possess a number of harbours and safe anchorage, notabl Port Blair in the south, Elphinstone and Bonington in the middle and Por Cornwallis in the north. Andaman and Nicobar Islands are the home of a large variety of peoples, of whom the aboriginal inhabitants of the Andamans are one. These small Negrito people are very ancient. They hav cultural similarities with Samans of Malaya and Beta of the Philippines. They are a pigmy race. These aborigins may be classified into the following major groups—(1) Andamanese who inhabit the coast line of Middl Andaman and North Andaman (2) Onges of Little Andaman (3) Jarawa of middle and south Andaman and Sentinelese of North Sentinel Island. The inhabitants of Nicobar Islands can be classified into two main groups viz., the Nicobarese and Shom Pens. From the anthropological point th Nicobarese have a marked resemblance with the Indo-Chinese race. Unlike Andamanese, the Nicobarese are a well developed, good humoure lively race. The total population of the Andaman Islands (excluding th aborigins) is 30,971 according to 1951 census. Coconut, coffee and rubbe are great sources of income. The islands are slowly being made sel sufficient in paddy and rice, and now grow approximately half the annual requirements. No proper survey of the mineral resources of thes islands has yet been undertaken.

From 1858 to March 1942 the islands were used by the Government of India as a penal settlement for convicts serving life sentences and long terms. The islands were occupied by the Japanese forces on the 23rd of March, 1942 and reoccupied by the Allies on 8th October, 1945. On reoccupation the penal settlement was abolished.

The Nicobar Islands are situated to the south of the Andamans. The Nicobar group is a cluster of seven large and twelve small islands lying south of the Andamans between 6° 40' and 9° 20' latitude and 94' east longitude. The total area of the islands is [illegible] sq. miles and is unevenly distributed. Only seven of the nineteen islands are of considerable size. These seven islands, north to south, are Car Nicobar, Teresa, Kamotra, Nancowry, Little Nicobar and Great Nicobar. There is a fine landlocked harbour between the islands of Kamotra and Nancowry known as Nancowry Harbour. The cocoanut is the main article of trade and a major item in their diet and they have been cultivating the cocoanut for a long [illegible]

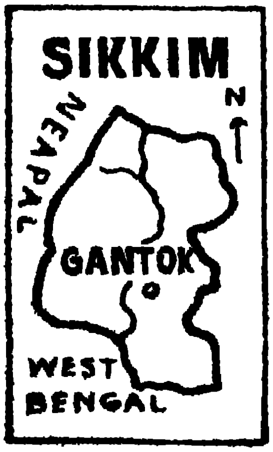
The Andaman and Nicobar Islands have been constituted into a Union Territory with the effect of 1st November 1956 and are administered by the Central Government through the Chief Commissioner. An Advisory Council consisting of five members nominated by the Central Government is associated with the Chief Commissioner. A member has been nominated in the Lok Sabha from these Islands.

STATES WITH SPFCIAL RELATION WITH INDIA — PROTECTORATES

Sikkim

Capital	Gangtok	Area	2,744 sq. m.
Population	137,725		

Sikkim is bounded on the south by India, on the west by Nepal, on the north and east by Tibet and on the east by Bhutan. Most of Sikkim is in the Himalayas, and in the boundary with Nepal lies Kanchenjunga. Rivers include Tista flowing through deep valleys and intersect the country. The country has an area of 2744 sq. miles, the extreme length from north to south being 73 miles and its extreme width 55 miles. Its population is 137,725 according to 1951 census, consisting of people partly of Tibetan origin, partly Lepcha tribesmen and partly of Nepalese immigrants. Buddhism is the religion of the ruling family.



Rhododendrons are one of the glories of Sikkim. There are as many as 40 species of them. There are about 500 different kinds of orchids in Sikkim.

Sikkim had long been treated as an Indian State, but with a special position in view of its geographical situation. Political relation between India and Sikkim is dated from 1817 and until the transfer of power in August 1947, they were regulated by a treaty signed in 1861.

A new treaty between India and Sikkim has been signed on 5th December, 1950, by which Sikkim continues to be the protectorate of India. India has therefore a special responsibility in respect of the State's finances, external relations and communications. By it, all previous treaties between British Government and Sikkim were cancelled. The Government of India is responsible for the defence and territorial integrity of Sikkim. It has the right to take such measures as it considers necessary for the defence of Sikkim or the security of India. In particular, the Government of India has the right to send troops anywhere within Sikkim. Government of Sikkim shall not import any arms, ammunitions or other warlike materials without the previous consent of the India Government. The external relations of Sikkim are conducted and regulated solely by the Government of India and Sikkim shall have no dealings with any foreign power. Government of India have the exclusive right of constructing, maintaining and regulating railways, aerodromes, posts, telegraphs, telephones, wireless in Sikkim. Indian nationals within Sikkim are subject to the laws of Sikkim and subjects of Sikkim within India are subject to the laws of India. Government of India agreed to pay Rs. 1 lakh annually to Sikkim.

Sikkim's first legislative body known as Sikkim State Council came into being on the 7th August 1953.

Maharaja: Sir Tashi Namgyal.

India's Political Officer: Appasaheb B. Pant.

BHUTAN

Capital: Paro. Area (sq. m.): 18,000

Bhutan is a small landlocked semi-independent State lying on the south east slopes of the Himalayas, bordered on the south and west by the Union of India extending for about 190 miles east and west along southern slopes of the Himalayas, bordered on the west, north and east by Tibet and on the south by Bengal and Assam. Its maximum breadth is 90 miles. Its area is 18,000 square miles. The importance of Bhutan to India's defence, occupying as it does strategic place on the north eastern border alongside Nepal and Sikkim, is obvious, especially with Tibet completely falling under the control of communist China.

Bhutan did not belong to the category of Indian States in the real sense of the term. Bhutan is a protectorate State, in respect of foreign relations, of the Government of India. Before the conclusion of the new treaty between the Governments of India and Bhutan, which was signed at Darjeeling on August 8, 1949, the main instruments governing India's relations with Bhutan were the Sinchula Treaty of 1865 as amended by the Treaty of 1910, between the former Government of India and the Government of Bhutan. Under the treaty of 1949, the Government of India undertook to exercise no interferences in internal administration of Bhutan. On their part, the Government of Bhutan agreed to be guided by the advice of the Government of India in regard to their external relations. The Government of India is to pay to Bhutan annually a sum of rupees five lakhs. Government of India also returned to Bhutan Government about 32 sq. miles of territory known as Dwangiri. The treaty provides among other things, that Bhutan shall be free to import with the assistance and approval of India whatever arms, ammunitions, warlike materials, or stores may be required for Bhutan. This arrangement will hold good so long Government of Bhutan is friendly to India and there is no danger to India for such imports. Bhutan also agreed that there should be no export of arms and ammunitions across the frontier of Bhutan either by the Government of Bhutan or by private individual. The treaty also provides for extradition.

As for the administration of the country, the ruler is absolute. There is no appeal, no court of law. There is no political party. The country is divided into nine provinces and each province is under the administrative control of a Penlop who resembles the feudal zamindars of India. It is through these nine Penlops and their chief secretaries that the Maharaja rules the country.

People of Bhutan are closely allied to those of Tibet and speak Tibetan dialect similar to that spoken in nearby Sikkim. Anthropologically they are closely allied to Mongolian tribes of Sikkim as Gurungs, Rais and Limbus. Bhutanese are Buddhists.

Ruler—H. H. The Maharaja Jigme Dorji Wangchuk.

STATES BORDERING INDIA

NEPAL

Capital	.. Kathmandu	Area (sq. m.)	.	54,343
Population (1955)	.. 8,600,000			

Nepal is a landlocked country between India and Tibet. It is situated on the north-east frontier of India. It is bounded on the north by Tibet, in the east by Sikkim, on the south by Bengal and Uttar Pradesh, on the west by Kumaon from which it is separated by a river. In area it is 54,343 sq. miles stretching 500 miles between Tibet and India. Its width is about 150 miles. Nepal consists physically of two distinct territories (1) the *terai* or strip of level cultivated forest lying along the southern border and (2) the great mountainous tract stretching northwards to Tibet. Along the northern frontier stand many of the highest peaks of the Himalayan range, such as Mount Everest (29,028 ft.), Makalu (27,790 ft.), Kanchanjenga (28,146 ft.), Dhaulagiri (26,810 ft.), Gaurisankar (23,400 ft.) and numerous peaks varying from 20,000 to 24,000 feet. The Valley of Nepal with an area of c. 200 sq. miles is in the east; this is the only densely populated area and has cities of Katmandu, Bhatgaon and Patan. Nepal has three distinctions, *viz.*, it is the only Hindu Independent State of the world, it contains Mount Everest, the highest measured mountain in the World. It produces the toughest fighting men in the world—the Gorkhas. The Tribhuvan Rajpath, the 75-mile highway across three massive Himalayan ranges, which provides, for the first time, a heavy traffic taking road-link between the Nepalese capital and the southern plains of the Himalayan capital, has been built by the India Government. This road ultimately connects the Indian border station of Raxaul with Kathmandu. The road was opened in 1956 and it was formally handed over to Nepal in 1957. Nepal's two short railroads which connect with lines in India do not reach the valley, which is served by a suspended rope cable.

The Himalayan Kingdom is a self sufficient country as far as food is concerned. It is claimed that the world's best rice is produced in this country. Some of the surplus agricultural products are exported to India and other countries. Among its mineral resources are gold, silver, copper, lead and iron ores, but the mining of these underground resources is still undeveloped.

The races occupying Nepal are of mixed Mongol origin. To the north in the higher mountain and valley, dwell the Bhotias or Tibetans; to the west the Gurungs and Magars. The Murmis, Gorkhalis and Newars occupy the central parts, Kiratis, Limbus and Lepchas the eastern. There are also Brahmins and Chhitris in the hills. There are also lesser tribes in the terai and other malarious districts known as Khumbus, Tharus, Manjis etc. but generally classed together as Aoulias or dwellers in the districts. The Gorkhalis or Gorkhas are the descendants of the Brahmans and Rajputs who were driven out of India by the Muslims and took refuge in the western hilly lands where they ultimately became dominant and intermarried with the other races. The Photias, Newars, Limbus, Keratis and Lepchas are all Buddhists, but their religion has so mixed up with Hinduism that it is now hardly recognisable. Magars and Gurungs are Hindus.

The ruling power was for a long time the hereditary Ranas. Though theoretically the king was supreme ruler but the real power was vested in the Prime Minister who was also head of the Army. This domination by an autocratic hereditary party was always resented by [illegible] of the people and this unrest came to a head in 1950 when [illegible] rose against the Rana rule and established democratic form of Government. The administrative structure was reorganised in accordance with a proclamation made by the King on February 18, 1951. The introduction of these changes marked the end of the hereditary rule of the Ranas which was in existence from 1867. The present Government of Nepal is being carried on by the King with the help of Ministers. A Constituent Assembly would be set up to draw a permanent constitution.

In December 1955, Nepal was formally admitted to the United Nations.

Two treaties—one treaty of peace and friendship and other treaty of trade and commerce have been signed between the Government of India and Nepal on July 31, 1950. In the first treaty two Governments agree mutually to acknowledge and respect the complete sovereignty, territorial independence of each other. India and Nepal will inform each other of "any serious friction or misunderstanding" with a neighbouring State likely to impair their relations.

Two Governments agreed to appoint Consul-Generals. Government of Nepal shall be free to import from and through India arms, ammunitions, or warlike materials and equipment necessary for the security of Nepal. Both Governments agreed to grant on a reciprocal basis, to the national of one country in the territories of the other the same privileges in the matter of residence, ownership of property, participation in trade and commerce, movement and other privileges of a similar nature. In economic matters, each Government guarantees national treatment to the citizens of the other in its.

TIBET

Area (sq. m.) . c. 470,000 Capital Lhasa

The Tibet is bordered by China on the north and east, by Bhutan, Nepal and India on the south and by India on the west. The country, almost completely surrounded by mountain ranges is largely a plateau averaging c. 15,000 ft. high. The Tibet is perhaps at a loftier elevation than any other country in the world. The only important river is the Tsangpo (Brahmaputra) which follows an easterly course through south Tibet. In the Tsangpo valley are nearly all the large permanent settlements, including Lhasa, Shigatse and Gyangtse. Most areas of Tibet are suitable only to grazing. Yaks, which can withstand the intense cold are the principal domestic animals and there are also large herds of goats and sheep. Surfaced roads provide the only commercial routes within Tibet and they are limited to Tsangpo area. The goods for foreign trade are carried by pack trains over difficult mountain passes. The inhabitants of Central and North Tibet are nomadic.

Many of the country's dwellers in the cities are Lamaist monks, who may comprise as much as one sixth of the country's male population. The chief figures of Lamaism the Dalai Lama and Tashi (or Panchen) Lama are at least the nominal heads of the Tibetan Government. There are several executive bodies and an appointed assembly the Tsongdu. In general, the administration is equally divided between Lamas and laymen. After adopting Buddhism from India in the 8th century A.D., Tibet except for minor relations isolated itself from the rest of the world and even to the present few people have succeeded in visiting the forbidden land.

China conquered Tibet in 1720 and thereafter claimed suzerainty—often merely nominal. This was disputed by Great Britain which in 1904 dispatched to Lhasa Sir Francis Younghusband who secured valuable trading rights. Encouraged by the British Tibet declared independence in 1913. In 1913 a Tripartite Conference was held in Simla between the Chinese, Tibetans and the British to settle their mutual relation, but at the last moment the Chinese withdrew from the Conference and the British and Tibetans signed a treaty which settled the relations between the two countries.

From 1918 to 1933 there were constant friction and fighting between the Chinese and Tibetans which kept the relation between two countries always confused In 1918 the Tibetans almost completely cleared the country of Chinese troops With the death of 13th Dalai Lama in 1933, the country was being ruled by regent 14th Dalai Lama the present occupant assumed charge of the country in September 1939 In 1932 the Panchen Lama (second important Lama, also known as Tashi Lama) had to flee to China due to quarrel with Dalai Lama where he died in 1937 A new incarnation found out as Panchen Lama was not accepted by Dalai Lama This divided the country into parties Communist Government in China now tried to establish its firm hold on Tibet and took up the cause of Panchen Lama and invaded the country on the pretext of liberating Tibet in 19[illegible] The Communist Government of China have greatly consolidated their position and Tibet is now practically a province of China

Relations with India —All the previous treaties governing the relations between India and Tibet were scrapped and a new treaty was signed between India and the People's Republic of China on 29th April 1954 In the text of the agreement the following five basic principles are mentioned— mutual respect for each others territorial integrity and sovereignty mutual non-aggression, mutual non-interference for each others internal affairs, equality and mutual benefit and peaceful coexistence The main terms are as follows —(1) China may establish trade agencies at New Delhi Calcutta and Kalimpong (2) Government of India may establish trade agencies at Yatung, Gyantse and Gartok (3) Government of China agree to specify (a) Yatung (b) Gyantse and (c) Phari as markets for trade the Government of India agrees that trade may be carried on in India including places like (a) Kalimpong (b) Siliguri (c) Calcutta according to customary practice (4) Pilgrims from India may visit Kailash and Mansarowar in Tibet region and pilgrims from Tibet may visit Banaras Sarnath Gaya and Sanchi in India Pilgrims customarily visiting Lhasa may continue to do so in accordance with usual custom

PORTUGUESE INDIA

Area (sq m)	1 537	Capital	Cidade de Goa
Population (1951)	637 5[illegible]1		(Panjim)

The Portuguese settlements in India are the following Goa Daman, Diu Goa lies 200 miles to the south of Bombay Daman is at the entrance of the Gulf of Cambay and about 110 miles to the north of Bombay and Diu in the Saurashtra Peninsula about [illegible]5 miles by sea from Bombay Diu is a small island separated from the mainland by a narrow stretch of sea The enclaves of Dadra and Nagar Aveli which formed the part of Daman have been taken over by the Goan nationalists who have set up their own administration

The people of Goa speak Marathi and Konkani the latter being a dialect of Marathi, which is spoken along the West Coast of India The language of Daman and Diu is Gujarati

The agriculture is the main occupation and rice, coconuts, cashu-nuts, betel nuts and fruit account for sizeable portion of the income of the Settlements.

The Head of the administration in the Settlements is the Governor-General appointed by the Portuguese Government in Lisbon. Daman and Diu each has a Governor. The Governor General is assisted by a Council of thirteen, of whom eight are nominated. The function of the Council is purely advisory. Since August 1955, a Legislative Council composed of 23 members, of whom eleven are elected, five nominated by the Governor-General and seven by public bodies and associations, have been added by the administrative structure.

Mormugao is the chief port and is open to ocean going vessels of every size from all parts of the world.

The people of the Portuguese settlement have started for merger movement with India. Severe repressive measures have been adopted by the Portuguese Government against the nationalist movement, which is being suppressed by all means.

PAKISTAN

Capital	Karachi	Population	75,842,000
Area (sq. m.)	364,737	Pop. per sq. m.	208

Pakistan which means Holyland, is a member of the British Commonwealth, one of the two independent countries into which the former Empire of India was divided in 1947. It consists of two separate parts—Western Pakistan and Eastern Pakistan separated by about 1,100 miles of India territory.

The West Pakistan Province now comprise Sind (excluding Karachi), Punjab, North West Frontier Province, Baluchistan States Union, Bahawalpur, Mirpur Khairpur and Frontier States. Karachi is a centrally administered area. The West Pakistan Province is split into ten "Commissioners' Divisions". The ten Commissioners Divisions are—Peshawar, Dera Ismail Khan, Rawalpindi, Lahore, Multan, Bahawalpur, Khairpur, Hyderabad, Quetta and Kalat Divisions.

High Court. A High Court provided for in the One Unit Act, passed by the Constituent Assembly in September 1955 has been established. The High Court replaces the High Court of Lahore, Chief Court of Sind and Judicial Commissioners Courts in N.W.F.P. and Baluchistan.

The other unit consists of East Bengal which is two thirds of the former province of Bengal, together with a small area formerly in Assam (Sylhet).

Constitution of Pakistan was passed on February 29, 1956. Pakistan became a Federal Republic on March 23, 1956. Some of the salient features of the Constitution are as follows:—The Pakistan Constitution enjoins the State to take steps 'to enable the Muslims of Pakistan, individually and collectively, to order their lives in accordance with the Holy Koran and

Sunnah. The Directive Principles of State Policy lay down that the State shall endeavour as regards the Muslims of Pakistan "to provide facilities whereby they may be enabled to understand the meaning of life according to the Holy Koran and Sunnah."

On October 1958, President Iskander Mirza proclaimed Martial Law in Pakistan, annulled the Constitution, dismissed the Cabinet, dissolved the Parliament and banned political parties. The President appointed Ayub Khan, the Chief of the Pakistan Army as the General to administer the country. However in the last week of October, General Ayub Khan proclaimed himself as the dictator of Pakistan. He dismissed the President Iskander Mirza and took over the Presidency.

CENSUS OF PAKISTAN

(*total population*—1000's)

	Area (sq m)	*Population*	*Persons per sq mile*
Pakistan	364,737	7,53,42	208
Baluchistan	54,456	6,22	11
Baluchistan States	79,516	5,52	6
East Bengal	54,501	4,20,63	777
Federal Capital, Karachi	812	11,25	1,378
N W F P	13,560	32,53	2 0
N W F P (Frontier Regions)	25,6 0	25,47	103
Punjab	62,245	1,86,28	3 7
Bhawalpur	17,471	18,23	104
Sind	50,397	4 08	91
Khairpur State	6,050	2,20	53

CENTRAL CABINET

Prime Minister—General Mohd Ayub Khan, Chief Martial Law Administrator, also Defence & Kashmir Affairs
Manzoor Kadir—Foreign Affairs
Lt Gen Mohd Azam Khan—Rehabilitation
Lt Gen W A Burki—Health & Social Welfare
F M Khan—Communications
Habibur Rahman—Education, Information and Broadcasting
Lt Gen K M Sheikh—Interior
Abul Kasim Khan—Industries, Works, Irrigation & Power
Hafizur Rahman—Food & Agriculture.
Zulfiqer Bhutto—Commerce.
M Shoaib—Finance.
Dr. Mohd Ibrahim—Law.

INDIAN DIRECTORY

Government of India

President of India	Dr. Rajendra Prasad
Vice President of India	Dr. S. Radhakrishnan
Prime Minister of India	Jawaharlal Nehru

Central Ministry

CABINET MINISTERS

Jawaharlal Nehru	Prime Minister and Minister of External Affairs & Department of Atomic Energy
Govind Ballabh Pant	Home Affairs
Morarji Ranchhodji Desai	Finance
Jagjivan Ram	Railways
Gulzarilal Nanda	Labour Employment and Planning.
Lal Bahadur Shastri	Commerce & Industry
Sardar Swaran Singh	Steel Mines and Fuel
K. C. Reddy	Works, Housing and Supply
Ajit Prasad Jain	Food and Agriculture
V. K. Krishna Menon	Defence
Sadashiv Kanoji Patil	Transport and Communication
Asoke Kumar Sen	Law
Hafiz Mohammed Ibrahim	Irrigation and Power

MINISTERS OF STATE

Satya Narayan Sinha	Parliamentary Affairs
Dr. B. V. Keskar	Information & Broadcasting
D. P. Karmarkar	Health
Dr. Punjabrao S. Deshmukh	Agriculture
Keshava Deva Malaviya	Mines & Oil
Mehr Chand Khanna	Rehabilitation
Nityanand Kanungo	Commerce and Industry
Raj Bahadur	Transport & Communications
Balwant Nagesh Datar	Home Affairs
Manubhai Shah	Commerce & Industry
Surendra Kumar Dey	Community Development and Co-operation.
Dr. Kalu Lal Shrimali	Education
Humayun Kabir	Scientific Research & Cultural Affairs.
B. Gopala Reddy	Revenue & Civil Expenditure.

DEPUTY MINISTERS

Sardar Surjit Singh Majithia	Defence
Abid Ali	Labour
Anil Kumar Chanda	Works, Housing and Supply
M V Krishnappa	Food and Agriculture
Jaisukhlal Hathi	Irrigation and Power
Satish Chandra	Commerce and Industry
Shyam Nandan Mishra	Planning
Bali Ram Bhagat	Finance
Dr Mono Mohan Das	Scientific Research & Cultural Affairs
Shahnawaz Khan	Railways
Smt Lakshmi N Menon	External Affairs
Smt Violet Alva	Home Affairs
Kotha Raghuramaiah	Defence
A M Thomas	Food and Agriculture
R M Hajarnavis	Law
S V Krishnaswamy	Railways
Ahmed Mohiuddin	Civil Aviation
Smt Tarkeshwari Sinha	Finance
P S Naskar	Rehabilitation

PARLIAMENTARY SECRETARIES

G Rajagopalan	Information and Broadcasting
Sadath Ali Khan	External Affairs
Jogendranath Hazarika	External Affairs
Lalit Narain Mishra	Labour Employment & Planning
Fatehsinhrao Pratapsinhrao Gaekward	Defence
B S Murthy	Community Development
Anand Chandra Joshi	Information and Broadcasting
Gajendra Prasad Sinha	Steel, Mines and Fuel

Secretaries to the Government of India

Vishnu Sahay, ICS	Cabinet Secretary
H M Patel ICS	Principal Secretary Ministry of Finance (*on leave*)
A V Pai ICS	Secretary to the President
M N Kaul	Secretary Lok Sabha
Vishnu Sahay, ICS	Special Secretary Ministry of Home Affairs
K V. K Sundaram, ICS	Secretary, Ministry of Law
S Dutt, ICS	Foreign Secretary Ministry of External Affairs
B. N Chakravarty, I.C.S	Special Secretary, Ministry of External Affairs

B. N. Jha, I.C.S.	Secretary, Ministry of Home Affairs.
V. K. B. Pillai, I.C.S.	Secretary, Ministry of Health.
T. Sivasankar, I.C.S.	Secretary, Ministry of Irrigation and Power.
M. J. Desai, I.C.S.	Commonwealth Secretary, Ministry of External Affairs.
M. R. Sachdev, I.C.S.	Secretary, Ministry of Works, Housing and Supply.
S. S. Khera, I.C.S.	Secretary, Ministry of Steel, Mines and Fuel.
S. Bhoothalingam, I.C.S.	Secretary, Ministry of Iron & Steel.
S. N. Mukherjee	Secretary, Rajya Sabha Secretariat.
Dr. H. J. Bhaba	Secretary, Department of Atomic Energy (Bombay).
P. N. Thapar, I.C.S.	Member, Atomic Energy Commission & Ex-officio Secretary, Atomic Energy Department.
K. R. Damle	Secretary, Ministry of Food and Agriculture (*Departmeent of Agriculture*).
D. L. Mazumdar, I.C.S.	Secretary, Ministry of Finance (*Department of Company Law Administration*).
R. K. Ramadhyani, I.C.S.	Secretary, Ministry of Information and Broadcasting.
K. G. Saiyidain	Secretary, Ministry of Education.
Dharma Vira, I.C.S.	Secretary, Ministry of Rehabilitation.
A. K. Roy, I.A.S.	Secretary, Ministry of Finance (*Revenue & Economic Affairs*).
S. Ranganathan, I.C.S.	Secretary, Ministry of Commerce and Industry.
Nawab Singh, I.C.S.	Secretary, Panning Commission.
B. B. Ghosh, I.A.S.	Secretary, Ministry of Food and Agriculture (*Department of Food*).
B. R. Tandon, I.C.S.	Secretary, Ministry of Community Development.
M. S. Thacker	Secretary, Ministry of Scientific Research & Cultural Affairs.
O. Pulla Reddi, I.C.S.	Secretary, Ministry of Defence.
M. V. Rangachari, I.A.S.	Special Secretary, Ministry of Finance (*Department of External Affairs*).
P. M. Menon, I.C.S.	Secretary, Ministry of Labour and Employment.
R. L. Gupta, I.C.S.	Secretary, Ministry of Transport and Communications (*Department of Transport*).

M. M. Philip, I.C.S.	Secretary, Ministry of Transport and Communications (*Dept. of Communications & Civil Aviation*).
N. N. Wanchoo, I.C.S.	Secretary, Ministry of Finance (*Dept. of Expenditure*).
V. Viswanathan, I.C.S.	Special Secretary, Ministry of Home Affairs.
K. R. Damle, I.C.S.	Secretary, Ministry of Food and Agriculture (*Agricultural Dept.*).
K. Y. Bhandarkar, I.C.S.	Secretary, Ministry of Law (*Dept. of Legal Affairs*).
G. R. Rajagopaul	Secretary, Ministry of Law (*Legislative Department*).
Shankar Prasad	Secretary, Kashmir Affairs (*Ministry of Home Affairs*).

DEFENCE FORCES

Indian Army

Chief of the Army Staff—General K. S. Thimayya.

General Officer, Commanding-in-Chief, Southern Command—Lt.-Gen. P. N. Thapar.

General Officer Commanding-in-Chief, Eastern Command—Lt.-Gen. S. P. P. Thorat.

General Officer Commanding-in-Chief, Western Command—Lt.-Gen. Kalwant Singh.

G.O.C., Madras, Mysore and Kerala Area—Maj.-Gen. R. K. Kochar.

G.O.C., Bombay Area—Maj.-Gen. P. N. Kirpal.

G.O.C., U. P. Area—Maj. Gen. Jai Singh.

G.O.C., Delhi and Rajasthan Area—Maj.-Gen. U. C. Dubey.

Commander, Bangalore Sub-Area—Brig. M. M. Badshah.

Commander, Bombay Sub-Area—Brig. Kamta Prasad.

Commander, Poona Sub-Area—Brig. A. S. Bedi.

Commander, Jubalpur Independent Sub-Area—Brig. W. T. Wilson.

Commander, Meerut Sub-Area—Brig. A. S. Sodhi.

Deputy Chief of the Army Staff—Lt. Gen. M. S. Wadalia.

Chief of the General Staff—Lt.-Gen. I. P. Sen.

Adjutant General—Lt. Gen. Kanwar Bahadur Singh.

Quartermaster General—Lt.-Gen. Daulat Singh.

Master General of the Ordnance—Lt. Gen. K. P. Dhargalkar.

Military Secretary—Maj. Gen. P. C. Banerji.

Engineer-in-Chief—Maj.-Gen. R. E. Aserappa.

Director of Military Training—Maj.-Gen. D. Som Dutt.

Director of Medical Services—Maj.-Gen. B. M. Rao.

Director of Supplies and Transport—Maj.-Gen. P. S. Chowdhury.

Director of Ordnance Services—Maj.-Gen. R. N. Nehra.

Director of Mechanical Engineering—Maj.-Gen. Harkirat Singh.

Director of Military Operations—Brig. D. C. Misra.

Director of Military Intelligence—Brig Dewan Prem Chand

Director of Staff Duties—Brig S N Bhatia

Director of Signals—Maj Gen A C Iyappa

Director of Territorial Army—Brig Harbhajan Singh

Director of Weapons and Equipment—Brig Y I Gulati

Director of Infantry—Brig Rajendra Singh

Director of Organisation—Brig Raj Sarin

Director of Personal Services—Brig J K Khanna

Director of Quartering—Brig Gurbux Singh

Director of Remounts Veterinary and Farms—Brig H L Bhandari

Indian Navy

Chief of the Naval Staff—Vice Admiral R D Katari

Flag Officer Commanding Indian Fleet—Rear Admiral A Chakraverti

Flag Officer Bombay—Rear Admiral B S Soman

Commodore-in-Charge Cochin—Commodore S G Karmarkar

Commodore East Coast (Visakhapatnam)—Commodore M K Heble

Deputy Chief of the Naval Staff—Commodore A K Chatterji

Chief of Material—Commodore P K Mukerjee

Chief of Personnel—Commodore G S Kapoor

Chief of Naval Aviation—Capt R H P Carver

Director of Civil Engineering—Capt S K Chatterjee

Director of Naval Ordnance and Equipment—Capt S D Kale

Director of Naval Engineering—Capt B S Baswan.

Director of Naval Construction—Capt I N Cochar

Director of Electrical Engineering—Capt M K Lele

Director of Naval Armament Inspection—Capt K J Reary

Director of Naval Stores—Capt Balwant Singh

Director of Naval Training—Capt C T McGready

Director of Supply—Capt K L K Row

Director of Medical Services—Surgeon Capt A K Dev

Director of Naval Education—Instructor Capt I S R Rao

Director of Operations and Staff Duties—Commander H A Menezes

Director of Naval Intelligence—Commander K [illegible] Nair

Director of Naval Signals—Commander Gautam Singh

Director of Naval Air Material—Commander P V George

Director of Armament Supply—Shri H Phava

Director of Naval Law (Judge Advocate General)—Shri K L Jhund

Indian Air Force

Chief of the Air Staff—Air Marshal S Mukerjee

Air Officer Commanding-in-Chief, Operational Command—Air Vice-Marshal Arjan Singh

Air Officer Commanding Training Command—Air Commodore Kanwar Jaswant Singh

Air Officer Commanding Maintenance Command—Air Commodore Harjinder Singh

Deputy Chief of the Air Staff—Air Vice Marshal D A R Nanda

Air Officer in Charge Administration—Air Commodore E W. Pinto

Air Officer-in-Charge, Maintenance—Air Commodore M. S. Chaturvedi.

Director of Medical Services—Air Vice-Marshal S. P. Bhatia.

Director of Policy and Plans—Air Commodore Ranjan Dutt.

Director of Operations—Group Captain K. N. Gocal.

Director of Meteorology—Group Captain P. K. Sen-Gupta.

Director of Signals—Group Captain K. A. Joseph.

Director of Training—Group Capt. H. C. Dewan.

Director of Intelligence—Group Captain R. Sitaram.

Director of Reserves—Group Capt. B. K Sen-Gupta.

Director of Personnel (Officers)—Group Captain R. S. Shipurkar.

Director of Personnel (Airmen)—Group Captain D. K. Sarkar.

Director of Personal Services—Group Captain K. M. Agerwala.

Director of Air Force Works—Group Captain T. S. Virk.

Director of Accounts—Group Capt. K. N. Suri.

Director of Technical Services (A)—Group Captain N. P. Nair.

Director of Technical Services (B)—Group Captain S. M. Rikh.

Director of Mechanical Transport—Group Captain R. S. Marya.

Director of Equipments (A)—Group Captain G. B. Singh.

Director of Equipments (B)—Group Captain R D. Khanna.

Chief Engineer, Air Force Works—Col. B. N. Das.

Tariff Commission

C. Ramasubban (*Chairman*).
Dr. S. K. Muranjan (*Member*).
R. S. Bhatt, *Member*.
J. N. Dutta, *Member*.
Dr Rama Varma—*Director*.

The Supreme Court of India

S. R. Das, *Chief Justice*.
N. H. Bhagwati, *Judge*.
T. L. Venkatarama Aiyar, *Judge*.
S. K. Das, *Judge*.
Jiwanlal Kapoor, *Judge*.
P. B. Gajendragadkar, *Judge*
K N. Wanchoo, *Judge*.
Mr. Buvaneshwar P. Singh, *Judge*.
Syed Jafar Imam, *Judge*.
A. K. Sarkar, *Judge*.
Koka Subha Rao, *Judge*.
Mohammad Hidayatullah, *Judge*.

Atomic Energy Commission

Dr. H. J. Bhabha.
P. N. Thapar.
Dr. K S. Krishnan.

Controller and Auditor-General of India

A. K. Chanda.

Law Officers of the Government of India

Attorney-General—M. C. Sitalvad.

Solicitor-General—C. K. Daphtory.

Finance Commission

Chairman—K. Santhanam.

Members—Ujjal Singh, M. V. Rangachari, L. S. Mishra, B. N. Ganguli, H. B. Bhan.

Election Commission

Chief Election Commissioner—V K Sundaram

Election Commissioners—B K Bhattacharjee, P S Subramaniam, P K Shunglu

Law Commission

M C Setalvad—*Chairman*
G N Das—*Member*
P Satyanarayana Rao—*Member*
N C Sen Gupta—*Member*
V K T Chari—*Member*
D Narasa Raju—*Member*
S M Sikri—*Member*
G S Pathak—*Member*
G N Joshi—*Member*

Copyright Board

M P Satyanarayana Rao—*Chairman*; Dr A M D'Rozario—*Member*; B N Lokur—*Member*

University Grants Commission

C D Deshmukh (*Chairman*)
H N Kunzru (*Member*)
K S Krishnan (*Member*)
A L Mudaliar (*Member*)
Dewan Anand Kumar (*Member*)
G C Chatterji (*Member*)
K G Saiyidain (*Member*)
N N W[illegible] (*Member*)
[illegible] (*Member*)

Railway Board (Ministry of Railways)

Chairman

Chairman Railway Board	I C Mu[illegible]

Members

Member Staff	M N C[illegible]
Financial Commissioner of Railways	D [illegible]
Member Transportation	Karnail Singh
Member Engineering	[illegible]

Additional Members

Additional Member (Finance)	Ajit Singh
Additional Member (Mechanical)	F W I[illegible]
Additional Member (Commercial)	S R K[illegible]
Additional Member (Staff)	A P K[illegible]
Additional Member (Works)	N K Roy

General Managers, Indian Railways

B Arora	Central
M K Kaul	Western
K Ramachandran	Chittaranjan Locomotive Works.
D C Baijal	North East Frontier
B B Mathur	Northern
Kripal Singh	Eastern

S. S. Ramasubhan	North Eastern
A. C. Mukerjee	Southern
H. D. Awasty	Railway Electrification, General Manager & Chief Engineer,
H. K. L. Sethi	General Manager & Chief Engineer, Ganga Bridge Project

Union Public Service Commission

V S Hejmadi ICS (*Chairman*)
C V Mahajan (*Member*)
Dr A R Sen (*Member*)
J Sivashunmugham Pillai (*Member*)
P L Verma (*Member*)
S H Zaheer ICS (*Member*)
Dr G S Mahajani (*Member*)

Planning Commission

Chairman—Jawaharlal Nehru
Deputy Chairman—V T Krishnamachari
Members—Morarji Desai, V K Krishna Menon, Gulzarilal Nanda, Shriman Narayan, T N Singh, C M Trivedi

Important Posts

Solicitor General of India—C K Daphtary

Attorney General of India—M C Setalvad

Director General of Civil Aviation—K M Kaha

Controller and Auditor General—A K Chanda

Director General of Posts and Telegraphs—[illegible] ICS

Director General of Ordnance Factories—[illegible] K [illegible]

Surveyor General of India—Col Gambhir Singh

Director General of Shipping—Nagendra Singh ICS

Census Commissioner—A K Mitra ICS

Inspector General of Forests—C K Ranganathan

Director General of Supplies and Disposals—V N Rajan ICS

Director General of Observatories—S Basu

Chairman, Life Insurance Corporation—P A Gopalakrishnan, ICS

Controller of Patents and Designs—K Seshagiri Rao

Controller of Printing and Stationery—C A Sub[illegible]

Commissioner for Scheduled Castes and Tribes—L M Shrikant

[illegible] General of [illegible]—C [illegible]

[illegible]—Dr N Dutt Majumdar

Chairman, [illegible] Finance Corporation—[illegible] K M[illegible]

Chief Controller of Imports and Exports—S M Bilgrami

[illegible] General of India—S V[illegible]

Director General of [illegible]—C A Ramakrishnan ICS

Chief Election Commissioner—K V K Sundaram

Director, Council of Scientific and Industrial Research—M S Thacker

Director General, A I R—J C Mathur

Director, Geological Survey of India—Bhabesh Chandra Roy

Director of Archives—R. C. Gupta.

Principal Press Information Officer—M. L. Bhardwaj.

Director-General of Health Services—Lt Col Jaswant Singh.

Director General of Resettlement and Employment—S Abdul Qadir.

Director General of Commercial Intelligence and Statistics—C R. B. Menon

Chairman, University Grants Commission—C. D. Deshmukh.

Chairman, Indian Airline Corporation—Sankar Prasad, I.C S.

Chairman, State Bank of India—P. C Bhattacharya.

Governor, Reserve Bank of India—H V. R Iengar.

STATE GOVERNORS

Governors.
- *Andhra Pradesh*—Bhimsen Sachar.
- *Assam*—Saiyid Fazl Ali
- *Bihar*—Dr Zakir Hussain
- *Bombay*—Sri Prakasa
- *Jammu & Kashmir*—Yuvraj Karan Singh (*Sadar-i-Riyasat*)
- *Kerala*—B Ramakrishna Rao
- *Madhya Pradesh* H V Pataskar
- *Madras*—Bishnuram Medhi

Governors:
- *Mysore*—H H Jaya Chamaraja Wadiyar.
- *Orissa*—Y N Sukhtankar.
- *Punjab*—N V Gadgil.
- *Rajasthan*—Gurmukh Nihal Singh.
- *Uttar Pradesh*—V V Giri
- *West Bengal*—Smt Padamaja Naidu

RULERS OF TERRITORIES

Lt Governor
- *Himachal Pradesh*—Bajrang Bahadur Singh Bhadri

Chief Commissioners.
- *Delhi*—A D Pandit
- *Tripura*—N M. Patnaik

Chief Commissioners
- *Andaman & Nicobar Islands*—M V Rajwade
- *Pondicherry*—L R S Singh.
- *Manipur*—J M Raina
- *Laccadive, Minicoy & Amindevi Islands*—S Moni

SPEAKERS OF THE LEGISLATIVE ASSEMBLIES

Assam—Devakanta Barua

Andhra Pradesh A Kaleswara Rao

Uttar Pradesh—A. G Kher

Rajasthan—Ram Niwas Mirdha.

Bihar—V P Varma.

Madhya Pradesh—K. L. Dubey.

Madras—Dr U Krishna Rao.

Mysore—S R Kanthi.

Orissa—Nilkantha Das

West Bengal—Sankar Das Banerjee.

Punjab Sardar G. S Dillon.

Bombay—S L Silam

Jammu & Kashmir—Asadullah Mir.

Kerala—R Sankaranarayanam Thampi

Pondicherry (*Representative Assembly*)—Evariste Dessama (President).

CHAIRMEN, LEGISLATIVE COUNCILS

Jammu & Kashmir—Sheonarayan Fotedar.

Bihar—Shyamaprasad Sinha.

Bombay—Bhogilal D. Lala.

Madras—Dr. V. P. Chatian.
Mysore—P. Seetharamaiah
Punjab—Sardar Kapur Singh.
West Bengal—Dr S K Chatterjee.
Uttar Pradesh—Chandra Bhal.

Chairmen, Territorial Councils

Himachal Pradesh—Karam Singh *Manipur*—H D Sarma.
Tripura—Sachindralal Singha

STATE MINISTRIES

ANDHRA PRADESH

Ministers

N. Sanjiva Reddi (*Chief Minister*)	General Administration including All India Services, High Court, Industries and Commerce and Transport.
K Venkataranga Reddi	Home (Police and Prohibition)
Kala Venkata Rao	Land Revenue, Land Reforms Registration and Excise
V. B Raju	Planning and Development, Information & Public Relations
J. V Narsinga Rao	Irrigation and Power
D. Sanjiviah	Labour, Health & Local Administration
P. Thimma Reddi	Agriculture, Forest and Animal Husbandry
S. B Pattabhirama Rao	Education and Social Welfare
K. Brahmananda Reddi	Finance
G. Venkata Reddi Naidu	Law (Subordinate Courts) & Prisons
Nawab Mehdi Nawaz Jung	Co-operation and Housing
M. Narsinga Rao	Buildings, Highways, Relief and Rehabilitation
A. Vagavantha Rao	Hindu Religious and Charitable Endowments, Small scale and Cottage Industries

ASSAM

Ministers

Bimala Prasad Chaliha	Appointments, Political, Home, General Administration, Relief & Rehabilitation, Transport, Minority Commission and Co-ordination
Rupnath Brahma	Medical and Public Health, Printing and Stationery and Registration & Stamps.

Debeswar Sarma	Roads and Buildings under P.W.D., Jails and Education.
Kamakshya Prasad Tripathi	Planning and Development, Statistics, Labour, Town and Country Planning, Industries and Power (Electricity), Trade and Commerce.
Moinul Huq Chaudhury	Veterinary and Livestock Supply, Parliamentary Affairs, P.W.D., Flood Control & Irrigation, Agriculture.
Hareswar Das	Revenue, Forests and Excise.
Mahendranath Hazarika	Rural Development (*Panchayats*), Cottage Industries, Khadi and Village Industries Board.
Williamson A. Sangma	Tribal Affairs, Information and Publicity.
Fakhruddin Ali Ahmed	Finance, Community Projects and N.E.S. Blocks, Local Self-Government, Judicial and Legislative.

Deputy Ministers :
Biswadev Sarma.
Girindranath Gogoi.

Parliamentary Secretaries :
A. Thanglura.
Lalmawia.
Lalit Chandra Doley.

BOMBAY

Ministers

Yeswantrao B. Chavan (*Chief Minister*)	Political Services and Home.
Dr. Jivraj N. Mehta	Finance.
Rasiklal U. Parikh	Revenue.
Shantilal Shah	Labour & Law.
M. S. Kannamwar	Public Health.
Vasantrao P. Naik	Agriculture.
Ratubhai Adani	Prohibition, Panchayats and Cottage Industries.
Bhagwantrao Ghade	Forests.
M. C. Shah	Local Self-Government.
S. K. Wankhede	Planning, Development, Electricity & Industries.
D. S. Desai	Public Works.
H. K. Desai	Education.
Syed G. Kazi	Civil Supplies, Housing, Printing Press & Fisheries.
T. S. Bharde	Co-operation.
H. K. Tirpude	Social Welfare & Rehabilitation.

Deputy Ministers

Dr. Bhaskar R. Patel	Prohibition.
Premji Bhavanji Thacker	Roads, Buildings & Ports.
Shankarao Chavan	Revenue.
Sm. Nirmala Raje Bhosale	Education.
Devisingh Chauhan	Agriculture.
Jaswantlal Shah	Co operation.
Shamrao Patil	Sarvodaya, Forest, Labour & Societies
G. D. Patil	Planning & Development.
Chhaturbhai Patel	Transport & Jails.
Dr. Kailash S. Narola	Public Health.
Madhukar D. Chaudhari	Irrigation.
Bahadhurbhai K. Patel	Social Welfare.

Parliamentary Secretary

Homi J. H. Taleyakhan

KERALA

Ministers

E. M. Sankaran Nambudiripad (*Chief Minister*)	General Administration, Integration, Planning and all subjects not expressly mentioned.
C. Achutha Menon	Finance, etc.
K. C. George	Food and Forests.
K. P. Gopalan	Industries and Commerce.
T. V. Thomas	Transport and Labour.
P. K. Chathan	Local Self-Government.
Sm. K. R. Gouri	Revenue, Excise, Prohibition etc.
T. A. Majeed	Public Works.
Joseph Mundassery	Education.
Dr. A. R. Menon	Health Services.
V. R. Krishna Aiyar	Law and Order, Legislation etc.

JAMMU & KASHMIR

Ministers

Bakshi Ghulam Mohammed (*Chief Minister*)	Planning, Finance, General Administration, Transport, Law and Order, Police, Militia, Information and Scheduled Castes and Tourism.
Sham Lal Saraf	Health, Education, Jails & Archaeology.
Dinanath Mahajan	Law & Revenue, Judiciary, Legislation, Land Revenue, Land Records, and Relief & Rehabilitation.
Chunilal Kotwal	Development, Irrigation, Power, Housing and Water Supply.

Mir Ghulam Mohammed Rajpuri ..	Industries and Commerce, Labour, Forest, Industries & Drug Research Laboratories
Shamsuddin ..	Municipalities, Community Projects and National Extension

Ministers of State

Kushak Bakula, *Lama of Ladakh*
Ghulam Nabi Sigani
Abdul Ghani Trali
Amarnath Sharma
Bhagat Chhaju Ram
Harbans Singh Azad
Ghulam Nabi Wani Sogami.

BIHAR

Ministers

Dr. Srikrishna Sinha (*Chief Minister*)	Appointments and Political (minus Information & Transport), Finance, Industries (including Mines and Mineral Resources)
Deep Narayan Sinha	Irrigation, Power and Information
Sah Md Ozair Menemi	Jails, Relief, Rehabilitation & Transport
Bhola Paswan	Excise, Forest and Welfare
Binodanand Jha	Revenue & Gram Panchayats
Birchand Patel	Health, Supply, Food
Jagat Narain Lal .	Co-operation, Veterinary, Animal Husbandry and Law
Ganga Nand Singh	Education
Maqbul Ahmed	Public Works, Public Health, Engineering and Local Self Government.

Deputy Ministers

A. A. M. Noor	Food
Kedar Pandey ..	General Administration, Political, Irrigation and Power
Lahteswar Prasad Sahi	Industry, Community Projects and Information
Hriday Narain Chaudhury	Gram Panchayats, Co-operative, Animal Husbandry & Veterinary
Ambika Saran Singh .	Finance
Sahdeo Mahto	P.W.D. and Local Self Government
Radha Govind Prasad ..	Revenue, Forests and Information
S. M. Aquil ..	Law and Labour
Sm. Jyotirmoyee Devi ..	Welfare and Health
Chandrika Ram ..	Agriculture.
Krishna Kant Singh ..	Education and Excise

MADRAS

Ministers

K. Kamraj (*Chief Minister*)	Public, Planning and Community Development
M. Bhakthavatsalam	Home including Courts and Prisons, Prohibition, Food and Agriculture.
C. Subramaniam	Finance, Education, Information and Law
M. A Manikavelu	Revenue and Public Health
R Venkataraman	Industries, Labour, Co operation and Nationalised Transport
P. Kakkan	Public Works excluding Electricity, Harijan Welfare
V. Ramiah	Electricity and Transport
Sm. Lourdammal Simon	Local Administration and Fisheries

MADHYA PRADESH

Ministers

Dr K N Katju (*Chief Minister*)	General Administration, Home Publicity Complaints, Planning, Development and Coordination
B A Mandloi	Revenue Survey and Settlement, Land Records Land Reforms and Local Self Government
Shambhu Nath Shukla	Forest and Natural Resources
Dr S D Sharma	Education Law Physical Education and Tourist Traffic
Mishrilal Gangwal	Finance Separate Revenue, Economics & Statistics and Registration
Shankar Lal Tewari	Public Works and Electricity
V. V Dravid	Labour, Rehabilitation, Housing and Chambal Project
A Q Siddiqui	Jail Food and Civil Supplies
Ganesh Ram Anant	Social Welfare and Co operation
Rani Padmavati Devi	Public Health

Deputy Ministers

Inayatulla Khan Tarzi Mashrique	Shivbhanu Solanki
Narsinghrao Dixit	Sajjan Singh Vishnar
Keshavlal Gomastha	
Jagmohan Das	Dashrath Jain
Mathura Prasad Dubey	Shyam Sunder Narayan Mushran

MYSORE

Ministers

B D Jatti (*Chief Minister*)	Planning and Development, Home, Commerce & Industries
Kadidal Manjappa	Revenue
T Subrahmanya	Law, Labour & Local Self Government
T. Mariappa	Finance
H M Channabasappa	Public Works and Electricity
K F Patil	Agriculture and Food
Mali Mariappa	Co-operation
D K K Hegde	Health
Anna Rao Ganamukhi	Education
N Rachiah	Social Welfare Excise & Prohibition

Deputy Ministers

Sm [illegible]
J H Shaikh Imam
M N Nachhmool
[illegible]
H C Linga Reddi
B Basavalingappa

ORISSA

Ministers

Dr Harekrushna Mahtab (*Chief Minister*)	Political Services and Finance
Lingaraj Panigrahi	Home Law and Education
Dinabandhu Sahu	Industry Mining and Geology
Satyapriya Mohanty	Revenue and Excise
Sailendra Narayan Bhanja Deo	Public Works
Sm Pravati Manjari Devi	Health Relief and Rehabilitation
Pabitra Mohan Pradhan	Tribal Rural Welfare and Commerce
Nilamani Routray	Supply Transport and Labour
Ramachandra Mardaraj Deo	River Valley Development etc
Radhanath Rath	Development

Deputy Ministers

Santanu Kumar Das
Himansu Shekar Padhi
Bir Bikramaditya Singh Bariha
Kumudh Chandra Singh

PUNJAB

Ministers

Sardar Partap Singh Kairon (*Chief Minister*)	General Administration Law and Order, Transport Anti Corruption, and Integration
Pandit Mohanlal	Industries, Food & Supplies
Pandit Amarnath Vidyalankar	Labour, Co operation Education, Printing & Stationery & Language

Sardar Gian Singh Rarewala	Irrigation, Electricity and Panchayats
Giani Kartar Singh	Revenue, Local Self-government, Relief, etc
Capt Rao Birender Singh	PWD Housing Sports and Games,
Chaudhuri Surajmal	Medical Consolidation, Cooperation and Health
Dr Gopichand Bhargava	Planning Community Projects, Jails and Justice [illegible], Taxation and Cottage Industries
Master Gurbanta Singh	Medical and Health

Deputy Ministers

Dr Mrs Parkash Kaur
Yashwant Rai
Bakshi Partap Singh

Harbans Lal
Dalbir Singh
Banarsi Das

RAJASTHAN

Ministers

Mohanlal Sukhadia (*Chief Minister*)	General Administration Appointment [illegible] Planning [illegible] Development Education Industries [illegible] Mines
Haribhau Upadhyaya	Finance [illegible] Basic Education [illegible] Industries and Social Welfare
Ramkishore Vyas	Home, [illegible] Government [illegible] Remembrance Judicial Irrigation and Power
Badri Prasad Gupta	Local Self Government Legislative Assembly and Election Community Project, Medical Food, Civil Supplies and Labour
Damodarlal Vyas	Revenue Devasthan Relief and Rehabilitation and Famine Relief
Nathuram Mirdha	Agriculture, Cooperation, Forest, PWD and Transport

Deputy Ministers

Sampat Ram
Bhikha Bhai
Poonam Chand

Rikhab Chand Dhariwal
Daulat Ram

UTTAR PRADESH

Ministers

Dr. Sampurnanand (*Chief Minister*)	General Administration, Economics & Statistics, Industries and Labour.
Hukum Singh	Health, Rehabilitation and Justice.
Girdhari Lal	Public Works Department
Charan Singh	Revenue, Irrigation and Power.
Syed Ali Zaheer	Finance and Forests
Kamalapati Tripathi	Home, Education, Information and Harijan Welfare
Vichitra Narain Sharma	Local Self government
Mohanlal Gautam	Co operation and Agriculture.

Ministers of State

Dr. Sita Ram	Stamps, Registration, Excise & Transport
Jagmohan Singh Negi	Food and Civil Supplies
Lakshmi Narain Acharya	Social Security and Social Welfare

Deputy Ministers

Baldeo Singh Arya
Ram Swarup Yadav
Hemvati Nandan Bahuguna
Manvir Singh

WEST BENGAL

Ministers

Dr. Bidhan Chandra Roy (*Chief Minister*)	Home (except Police and Defence), Finance, Education, Development, Co operation, Cottage and Small-scale Industries
Prafulla Chandra Sen	Food, Relief and Supplies and Refugee Relief and Rehabilitation.
Kalipada Mukherjee	Home (Police and Defence)
Khagendra Nath Das Gupta	Works and building and Housing.
Ajoy Mukherjee	Irrigation and Waterways
Hem Chandra Naskar	Fisheries and Forests
S. P. Burman	Excise
R. Ahmed	Agriculture and Animal Husbandry.
I. D. Jalan	Local Self Government & Judicial.
Bimal Chandra Sinha	Law and Land Revenue
Bhupati Majumdar	Commerce & Industries
Abdus Sattar	Labour
Harendranath Raychaudhuri	Education.

Minister of State

Sm. Purabi Mukherjee	Refugee Relief and Rehabilitation and Home (Jails)
Tarun Kanti Ghosh	Development, Refugee Relief and Rehabilitation.
Dr. Anath Bandhu Roy	Health.

Deputy Ministers

Satish Chandra Roy Singha	Transport
Soufen Misra	Education
Tenzing Wangdi	Tribal Welfare
Smarjit Banerjee	Agriculture, Animal Husbandry and Forests
Rajani Kanta Pramanik	Relief and Supplies
Chittaranjan Roy	Co operation
Syed Kazem Ali Meerza	Cottage and Small scale Industries.
Md Ziaul Huq	Health
Sm Maya Banerjee	Refugee Relief and Rehabilitation.
Jagannath Kolay	Publicity and Public Relations
C C Mahanti	Food
Narbahadur Gurung	Labour
Ardhendu Shekhar Naskar	
Ashutosh Ghosh	

LACCADIVE, MINICOY & AMINDIVI ISLANDS

Advisory Council

Purakkathbhoomi Muhammad
K Nallakoya
P A Pookoya
Arenakat Syed Md Kasim Koya Thangal
Landeru Ganduvar Ibrahim Manikfan

ANDAMAN AND NICOBAR ISLANDS

Advisory Council (1958-59)

Lachman Singh M P
K. R Ganesh
Prafulla Gharami
Bishop John Richardson
Hajee Subhan Ali

PONDICHERRY

Advisory Council

Edward Gouhert	Finance, Labour and Industries.
Chandrasekhara Chattiar	Public Works, Electricity etc
Dakshinamurty Mudaliar	Medical, Public Health & Co operation.
Mohamed Yousuf	Revenue, Veterinary & Information.
Shanmugham	Agriculture, Rural Development etc.

LOK SABHA

Speaker—M Ananthasayanam Ayyangar

Deputy Speaker—Sardar Hukam Singh.

Secretary—M N Kaul

ANDHRA PRADESH—43

B Rajagopala Rao (Srikakulam)
Dippala Suri Dora (Parvathipuram)
Biddika Satyanarayana (Parvathipuram *Reserved*)
Vijayarama Raju (Visakhapatnam)
Missula Suryanarayana Murthy (Golugonda)
K[illegible] Veeranna Padalu (Golugonda *Reserved*)
D S Raju (Rajahmundry)
M Thirumala Rao (Kakinada)
B S Murthy (Kakinada *Reserved*)
Uddaraju R[illegible] (Narsapur)
Kumari Mothey Vedakumari (Ellore)
D Balarama Krishnaiah (Gudivada)
Dr K Achamamba (Vijayawada)
Mandali Venkata Krishna Rao (Masulipatnam)
N G Ranga (Tenali)
Kotha Raghuramaiah (Guntur)
R Narapa Reddy (Ongole)
C Bali Reddi (Markapur)
R L[illegible] (Nellore)
B Anjanappa (Nellore *Reserved*)
M Ananthasayanam Ayyangar (Chittoor)
Dr M V Gangadhara Siva (Chittoor *Reserved*)
T N Viswanatha Reddy (P[illegible]pet)
V Rami Reddi (Cuddapah)
T Nagi Reddy (Anantapur)
K V Ramakrishna Reddy (Hindupur)
P Venkata[illegible] (Adoni)
S Osman Ali Khan (Kurnool)
J Rameshwar Rao (Mahbubnagar)
P Ramaswamy (Mahbubnagar *Reserved*)
Vinayak Rao K Koratkar (Hyderabad)
Ahmed Mohiuddin (Secunderabad)
[illegible] (Vikrabad)
P Hanumantha Rao (Medak)
H C Heda (Nizamabad)
K [illegible] (Adilabad)
M Sriranga Rao (Karimnagar)
M R Krishna (Karimnagar *Reserved*)
Sadath Ali Khan (Warangal)
[illegible] Madhava [illegible] Rao (Mahbubabad)
[illegible] Rao (Khammam)
[illegible] (Nalgonda)
[illegible] (Nalgonda *Reserved*)

ASSAM—13

[illegible] (Cachar)
Nibaran Chandra Laskar (Cachar *Reserved*)
[illegible] (Autonomous District *Reserved*)
Amjad Ali (Dhubri)
[illegible] Deb (Goalpara)
[illegible] Basumatari (Goalpara *Reserved*)
Hem Barua (Gauhati)
[illegible] (Darrang)
Liladhar Kotoki (Nowgong)
Smt Mofida Ahmed (Jorhat)
[illegible] (Sibsagar)
Jogendra Nath Hazarika (Dibrugarh)
*Chowkhamoon Gohain

---

*Nominated by the President to represent Part B Tribal Areas of Assam

BIHAR—55

Bibhuti Mishra (Bagaha)
B. B. Varma (Champaran)
Bhola Rout (Champaran *Reserved*)
Dr. Syed Mahmud (Gopalganj)
Jhulan Sinha (Siwan)
Rajendra Singh (Chapra)
Mahendra Nath Singh (Maharajganj)
Pt. Dwarka Nath Tiwary (Kesaria)
Rajeshwar Patel (Hajipur)
Chandramani Lal Chaudhary (Hajipur *Reserved*)

Asoka Mehta (*Muzaffarpur*)
J. B. Kripalani (Sitamarhi)
Digvijaya Narain Singh (Pupri)
Shyamnandan Mishra (Jainagar)
Anirudha Singh (Madhubani)
Satyanarain Sinha (Samastipur)
Shreenarain Das (Darbhanga)
Rameshwar Sahu (Darbhanga *Reserved*)

Lalit Narain Mishra (Saharsa)
Bholi Sardar (Saharsa *Reserved*)
Mohammad Tahir (Kishanganj)
Phanigopal Sen (Purnea)
Bholanath Biswas (Katihar)
Paika Murmu (Rajamahal *Reserved*)
S. C. Choudhury (Dumka)
Debi Soren (Dumka *Reserved*)
Sm. Sakuntala Devi (Banka)
Banarsi Prasad Jhunjhunwala (Bhagalpur)
Banarasi Prasad Sinha (Monghyr)
Nayantara Das (Monghyr *Reserved*)
Jiyalal Mandal (Khagaria)
Mathura Prasad Mishra (Begusarai)
Kailash Pati Singh (Nalanda)
Sm. Tarakeshwari Sinha (Barh)
Sarangdhara Sinha (Patna)
Baliram Bhagat (Shahabad)
Kamal Singh (Buxar)
Dr. Ram Subhag Singh (Sasaram)
Jagjiwan Ram (Sasaram *Reserved*)
Satyendra Narain Sinha (Aurangabad)
Sm. Satyabhama Devi (Nawada)
Ramdhani Das (Nawada *Reserved*)
Brajeshwar Prasad (Gaya)
Sm. Vijaya Raje (Chatra)
S. A. Matin (Giridih)
P. C. Bose (Dhanbad)
Sm. Lalita Rajyalaxmi (Hazaribagh)
M. R. Masani (Ranchi East)
M. K. Ghosh (Jamshedpur)
Sambhu Charan Godsora (Singhbhum *Reserved*)
Jaipal Singh (Ranchi West *Reserved*)
Ignace Beck (Lohardaga *Reserved*)
Gajendra Prasad Singh (Palamau)

BOMBAY—66

Bhavanji A. Khimji (Kutch)
Ghanshyamlal Oza (Zalawad)
Manubhai Shah (Madhya Saurashtra)
Jaisukhlal Hathi (Halar)
Narendrabhai P. Nathawani (Sorath)
Sm. Jayaben Vajubhai Shah (Girnar)
Balvantray G. Mehta (Gohilwad)
Akbarbhai Chawda (Banaskantha)
Gulzarilal Nanda (Sabarkantha)
Purushottamdas R. Patel (Mehsana)
Motisinh B. Thakore (Patan)
Indulal K. Yagnik (Ahmedabad)
Karsandas Parmar (Ahmedabad *Reserved*)
Thakor Shri Fatesinhji Ghodasar (Kaira)
Sm. Maniben V. Patel (Anand)
Maneklal M. Gandhi (Panchmahals)
Jaljibhai Kovabhai Dindod (Dohad *Reserved*)
Fatesinhrao Pratapsinhrao Gaekwad (Baroda)
Chandra Shankar (Broach)
Changanlal M. Kedaria (Mandvi *Reserved*)
Morarji Ranchhodji Desai (Surat)
Manubhai Nichhabhai Patel (Bulsar *Reserved*)
S. K. Patil (Bombay City South)
Shripad Amrit Dange (Bombay City Central)

G. K. Manay (Bombay City Central Reserved)
V. K. Krishna Menon (Bombay City North)
Shamrao Vishnu Parulekar (Thana)
Laxman Mahadu Matera (Thana Reserved)
Rajaram B. Raut (Kolaba)
Narayan Ganesh Goray (Poona)
Keshavrao M. Jedhe (Baramati)
Balasaheb Salunke (Khed)
Premji R. Assar (Ratnagiri)
Nath Pai (Rajpur)
Bhausaheb R. Mahagaonkar (Kolahpur)
Shankarrao Khanderao Dige (Kolahpur *Reserved*)
Balasaheb Patil (Miraj)
D. R. Chavan (Karad)
Nana Patil (Satra)
J. G. More (Sholapur)
Tayappa Hari Sonavane (Sholapur *Reserved*)
R. K. Khadilkar (Ahmednagar)
B. C. Kamble (Kopergaon)
Bhaurao K. Gaikwad (Nasik)
Yadav Narayan Jadhav (Melegaon)
Laxman Vedu Valvi (West Khandesh *Reserved*)
Uttamrao L. Patil (Dhulia)
Naushir Bharucha (East Khandesh)
Shivram Rango Rane (Buldana)
Dr. Gopalrao B. Khedkar (Akola)
Laxmanrao S. Bhatkar (Akola *Reserved*)
Panjabrao S. Deshmukh (Amravati)
K. G. Deshmukh (Ramtek)
R. M. Hajarnavis (Bhandara)
Balkrishna Wasnik (Bhandara *Reserved*)
V. N. Swami (Chanda)
K. Jamnalal Bajaj (Wardha)
Dr. D. Y. Gohokar (Yeotmal)
Harihar Rao Sonule (Nanded)
Dr. Deorao Namdevrao Kamble (Nanded *Reserved*)
Venkatrao Sriniwasrao [illegible] (Osmanabad)
R. D. Patil (Bhir)
P. K. Pangarkar (Parbhani)
A. V. Ghare (Jalna)
Swami Ramanand Tirtha (Aurangabad)
Dr. M. S. Aney (Nagpur)

KERALA—18

S. Easwara Iyer (Trivandrum)
M. K. Kumaran (Chirayinkil)
V. P. Nayar (Quilon)
P. K. Kodiyan (Quilon *Reserved*)
P. T. Punnoose (Ambalapuzha)
P. K. Basudevan Nair (Thiruvella)
Mathew Maniyangadan (Kottayam)
George Thomas Kottukapally (Moovattupuzha)
A. M. Thomas (Ernakulam)
T. C. N. Menon (Mukundapuram)
K. K. Warior (Trichur)
V. Eacharan (Palghat)
P. Kunhan (Palghat *Reserved*)
K. P. Kuttikrishnan Nair (Kozhikode)
B. Pocker (Manjeri)
Dr. K. B. Menon (Badagara)
M. K. Jinachandran (Tellichery)
A. K. Gopalan (Kasargod)

MADHYA PRADESH—36

Radhacharan Sharma (Gwalior)
Surya Prasad (Gwalior *Reserved*)
Pt. Brij Narain Brajesh (Shivpuri)
Maharani Vijjaya Raje Scindia of Gwalior (Guna)
Leeladhar (Shajapur *Reserved*)
Kanhaiyalal B. Malvia (Shajapur)
Radhelal Vyas (Ujjain)
Manakbhai Agarwal (Mandsaur)
Amar Singh Damar (Jhabua *Reserved*)
Kanhaiyalal Khadiwala (Indore)
Ram Singh Bhai Verma (Nimar)
Sm. Maimoona Sultan (Bhopal)
Pt. Jwala Prasad Jotishi (Sagar)
Sm. Sahodra Bai Rai (Sagar *Reserved*)

Seth Govind Das (Jabalpur)
Raghunath Singh Killedar (Hosangabad)
Pt. Babulal Tewari (Nimar)
B. S. Chandak (Chhindwara)
N. M Wadiwa (Chhindwara *Reserved*)
M. G. Uikey (Mandla *Reserved*)
C. D Gautam (*Balaghat*)
Mohanlal Bakliwal (Durg)
Surti Kistaiya (Bastar *Reserved*)
Raja Birendra Bahadur Singh (Raipur)
Rani Kesharkumari Devi (Raipur *Reserved*)
Vidya Charan Shukla (Baloda-Bazar)
Sm. Minimata Agamdas Guru (Baloda Bazar *Reserved*)
Chandikeswar Saran Singh Ju Deo (Surguja)
Babunath Singh (Surguja *Reserved*)
Amarsingh Saigal (Janjgir)
Reshamlal Jangde (Bilaspur)
Anand Chandra Joshi (Shahdol)
Kamal Narain Singh (Shahdol *Reserved*)
Shiva Datt Upadhaya (Rewa)
Ram Sahai Tewari (Khajuraho)
Motilal Malviya (Khajuraho *Reserved*)

MADRAS—41

S. C. C Anthony Pillai (Madras North)
T. T Krishnamachari (Madras South)
Dr. A Krishnaswamy (Chingleput)
N. Siva Raj (Chingleput *Reserved*)
R. Govindarajulu Naidu (Tiruvallur)
N. R. M. Swamy (Vellore)
M. Muthukrishnan (Vellore *Reserved*)
R. Dharmalingam (Thiruvannamalai)
A. Duraisamy Gounder (Tiruppattur)
C. R. Narasimhan (Krishnagiri)
Dr. P. Subbarayan (Tiruchengode)
S. V. Ramaswamy (Salem)
R. Kanakasabai (Chidambaram)
L. Elayaperumal (Chidambaram *Reserved*)
N. P. Shanmuga Gounder (Tindivanam)
T D Muthukumarasami Nayudu (Cuddalore)
K R Sambandam (Nagapattinam)
M Ayyakannu (Nagapattinam *Reserved*)
C R Pattabhi Raman (Kumbakonam)
R Vairavan (Tanjore)
M Palaniandy (Perambalur)
K Periasami Gounder (Karur)
M. K M Abdul Salam (Tiruchirapalli)
R Ramanathan Chettiar (Pudukkottai)
P Subbiah Ambalam (Ramanathapuram)
U Muthuramalinga Thevar (Srivilliputhur)
R. S Arumugam (Srivilliputhur *Reserved*)
P Thanulingam Nadar (Nagercoil)
T Ganapathy (Tiruchendur)
P T Thanu Pillai (Tirunelveli)
M Sankarapandian (Tenkasi)
R Narayanasami (Periakulam)
K T K Thangamani (Madurai)
M Gulam Mohideen (Dindigul)
S C. Balakrishnan (Dindigul *Reserved*)
P R Ramakrishnan (Pollachi)
E V K Sampath (Namakkal)
S R Arumugam (Namakkal *Reserved*)
K S Ramaswamy (Gobichettipalayam)
Sm. Parvathi M. Krishnan (Coimbatore)
C. Nanjappan (Nilgiris)

MYSORE—26

D. A. Katti (Chikodi)
B. N. Datar (Belgaum)
Joachim Piadad Alva (Kanara)
T. R. Neswai (Dharwar South)
D. P. Karmakar (Dharwar North)
Ramappa Balappa Bidari (Bijapur South)
M. S. Sugandhi (Bijapur North)
Mahadevappa Rampure (Gulbarga)
Shanker Deo (Gulbarga *Reserved*)
Dr. G. S. Melkote (Raichur)
S A. Agadi (Koppal)
Tekur Subramanyam (Bellary)
J. M. Mahamed Imam (Chitaldrug)
K. G. Wodeyar (Shimoga)
H. Siddananjappa (Hassan)
M. K. Shivananjappa (Mandya)
C. R. Basappa (Tiptur)
M. Y. Krishnappa (Tumkur)
K. C. Reddy (Kolar)
Dodda Thimmiah (Kolar *Reserved*)
N. Keshava (Bangalore City)
H. C. Dasappa (Bangalore)
M. Shankaraiya (Mysore)
S. M. Siddiah (Mysore *Reserved*)
K. R. Achar (Mangalore)
U. Srinivasa Malliah (Udipi)

ORISSA—20

Jagannath Rao (Koraput)
T. Sanganna (Koraput *Reserved*)
Uma Charan Patnaik (Ganjam)
Mohan Naik (Ganjam *Reserved*)
Maharaja Pratap Keshari Deo (Kalahandi)
Bijaya Chandra Singh Pradhan (Kalahandi *Reserved*)
Shraddhakar Supakar (Sambalpur)
Banamali Kumbhar (Sambalpur *Reserved*)
Kalo Chandramani (Sundargarh *Reserved*)
Laxminarayan Bhanja Deo (Keonjhar)
Ram Chandra Majhi (Mayurbhanj *Reserved*)
Bhagabat Sahu (Balasore)
Kanhu Charan Jena (Balasore *Reserved*)
Surendranath Dwivedy (Kendrapara)
Baishnab Charan Mullick (Kendrapara *Reserved*)
Nityananda Kanungo (Cuttack)
Surendra Mahanty (Dhenkanal)
Badkumar Pratap Ganga Deb Bamra (Angul)
Dr. N. C. Samantsinhar (Bhubaneswar)
Chintamani Panigrahi (Puri)

PUNJAB—22

Hemraj (Kangra)
Daljit Singh (Kangra *Reserved*)
Sm. Subhadra Joshi (Ambala)
Chuni Lal (Ambala *Reserved*)
Mool Chand Jain (Kaithal)
Ranbir Singh Chaudhuri (Rohtak)
Chaudhuri Pratap Singh Daulta (Jhajjar)
Prakash Vir Shastri (Gurgaon)
Ram Krishan (Mahindragarh)
Pt. Thakar Dass Bhargava (Hissar)
Sardar Ikbal Singh (Ferozepur)
Sardar Surjit Singh Majithia (Tarn Taran)
Gurmukh Singh Musafir (Amritsar)
Dewan Chand Sharma (Gurdaspur)
Sardar Baldev Singh (Hoshiarpur)
Sardar Swaran Singh (Jullundur)
Sadhu Ram (Jullundur *Reserved*)
Ajit Singh Sarhadi (Ludhiana)
Bahadur Singh (Ludhiana *Reserved*)
Sardar Hukam Singh (Bhatinda)
Ajit Singh (Bhatinda *Reserved*)
Lala Achint Ram (Patiala)

RAJASTHAN—22

Radheyshyam Ramkumar Morarka (Jhunjhunu)
Rameshwar Tantia (Sikar)
Harish Chandra Sharma (Jaipur)
G. D. [illegible]mani (Dausa)
Shobha Ram (Alwar)

Raj Bahadur (Bharatpur)
Pt. Hiralal Shastri (Sawai Madhopur)
Jagan Nath Prasad Pahadia (Sawai Madhopur Reserved)
Nemichandra Kasliwal (Kotah)
Onkarlal (Kotah Reserved)
P B Bhogji Bhai (Banswara Reserved)
Manikya Lal Varma (Udaipur)
Deen Bandhu Parmar (Udaipur Reserved)
Ramesh Chandra Vyas (Bhilwara)
Mukat Beharilal Bhargava (Ajmer)
Harish Chandra Mathur (Pali)
Suraj Ratan Damani (Jalore)
Maharajadhiraj Raghunath Singhji (Barmer)
Jaswantraj Mehta (Jodhpur)
Mathuradass Mathur (Nagaur)
Maharaja Karani Singhji (Bikaner)
Panna Lal Barupal (Bikaner Reserved)

UTTAR PRADESH—86

Jang Bahadur Bist (Almora)
Bhakat Darshan (Garhwal)
H H Maharaja Shri Manbendra Shah (Tehri Garhwal)
Mahavir Tyagi (Dehra Dun)
Ajit Prasad Jain (Saharanpur)
Sunder Lal (Saharanpur Reserved)
Sumat Prasad (Muzaffarnagar)
Shahnawaz Khan (Meerut)
Vishnu Sharan Dublish (Sardhana)
Pt Krishna Chandra Sharma (Hapur)
Raghubar Dayal Misra (Bulandshahr)
Kanhaiya Lal Balmiki (Bulandshahr Reserved)
Abdul Lateef (Bijnor)
Hifzur Rahman (Amroha)
Ram Saran (Moradabad)
Syed Ahmed Mehdi (Rampur)
Satish Chandra (Bareilly)
C D Pande (Nainital)
Mohan Swarup (Pilibhit)
Bishanchandar Seth (Shahjahanpur)
Narain Din (Shahjahanpur Reserved)
Raghubir Sahai (Budaun)
Chaudhuri Badan Singh (Bisauli)
Jamal Khwaja (Aligarh)
Nardeo Snatak (Aligarh Reserved)
Raja Mahendra Pratap (Mathura)
Seth Achal Singh (Agra)
Braj Raj Singh (Firozabad)
Krishna Chandra (Jalesar)
Rohanlal Chaturvedi (Etah)
Bansidas Dhangar (Mainpuri)
Dr Sushila Nayar (Jhansi)
I M Dwivedi (Hamirpur)
Lachhi Ram (Hamirpur Reserved)
Dinesh Singh (Banda)
Mulchand Dube (Farrukhabad)
Arjun Singh Bhadauria (Etawah)
Tula Ram (Etawah Reserved)
Jagdish Awasthi (Bilhaur)
S M Banerjee (Kanpur)
Ansar Harvani (Fatehpur)
Lal Bahadur Shastri (Allahabad)
Jawaharlal Nehru (Phulpur)
Masuriya Din (Phulpur Reserved)
J N Wilson (Mirzapur)
Rup Narain (Mirzapur Reserved)
Raghunath Singh (Varanasi)
Birbal Singh (Jaunpur)
Ganpati Ram (Jaunpur Reserved)
Har Prasad Singh (Ghazipur)
Sarju Pandey (Rasra)
Radha Mohan Singh (Ballia)
Umrao Singh (Ghosi)
Kalika Singh (Azamgarh)
Vishwanath Prasad (Azamgarh Reserved)
Vishwanath Roy (Salempur)
Ramji Verma (Deoria)
Kashi Nath Pandey (Hata)
Shibban Lal Saxena (Maharajganj)
Sinhasan Singh (Gorakhpur)
Mahadeo Prasad (Gorakhpur Reserved)
Keshva Deva Malviya (Basti)
Ram Garib (Basti Reserved)

Ram Shanker Lal (Domariaganj)
Jogendra Singh (Bahraich)
Bhagwan Din Misra (Kaisarganj)
Atal Bihari Bajpayee (Balrampur)
Dinesh Pratap Singh (Gonda)
Ram Sewak Yadav (Barabanki)
Swami Ramanand Sastri (Barabanki *Reserved*)
Raja Ram Mishra (Faizabad)
Pannalal (Faizabad *Reserved*)
Pt. Govind Malaviya (Sultanpur)
Dr. B. V. Keskar (Musafirkhana)
Pt. Munishwar Dutt Upadhyay (Pratapgarh)
Firoze Gandhi (Rae Bareli)
Baijnath Kureel (Rae Bareli *Reserved*)
Vishwambhar Dayal Tripathi (Unnao)
Sm. Ganga Devi (Unnao *Reserved*)
Pulin Behari Banerjee (Lucknow)
Chheda Lal Gupta (Hardoi)
Shivdin Drohar (Hardoi *Reserved*)
Sm. Uma Nehru (Sitapur)
Chaudhuri Paragi Lal (Sitapur *Reserved*)
Khushwaqt Rai (Kheri)
Prabhunarain Singh (Banaras)

WEST BENGAL—36

N. R. Ghosh (Cooch Behar)
Upendranath Barman (Cooch Behar *Reserved*)
T. Manaen (Darjeeling)
Chapalakanta Bhattacharjee (West Dinajpur)
Mardi Selku (West Dinajpur *Reserved*)
Sm. Renuka Ray (Malda)
Muhammed Khuda Bukhsh (Murshidabad)
Tridib K. Chaudhuri (Berhampore)
Anil Kumar Chanda (Birbhum)
Kamal Krishna Das (Birbhum *Reserved*)
Subiman Ghose (Burdwan)
Atulya Ghosh (Asansol)
Mono Mohan Das (Asansol *Reserved*)
Bibhutibhusan Dasgupta (Purulia)
Ramgati Banerjee (Bankura)
Pashupati Mandal (Bankura *Reserved*)
Prabhat Kar (Hooghly)
Jitendra Nath Lahiri (Serampore)
Mohammed Elias (Howrah)
Aurobindo Ghosal (Uluberia)
Nikunja Behari Maiti (Ghatal)
Narasingha Malla Deb (Midnapur)
Subodh Hansda (Midnapur *Reserved*)
Pramathanath Banerjee (Contai)
Satish Chandra Samanta (Tamluk)
Hirendra Nath Mukerjee (Calcutta Central)
Sadhan Chandra Gupta (Calcutta East)
Asok Kumar Sen (Calcutta North West)
Biren Roy (Calcutta South West)
Purnendu Sekhar Naskar (Diamond Harbour)
Kansari Halder (Diamond Harbour *Reserved*)
Sm. Renu Chakravartty (Basirhat)
Paresh Nath Kayal (Basirhat *Reserved*)
Bimal Comar Ghose (Barrackpore)
Arun Chandra Guha (Barasat)
Sm. Ila Pal Choudhuri (Nabadwip)

DELHI—5

Sm. Sucheta Kripalani (New Delhi)
Radha Raman (Chandni Chowk)
Chaudhury Brahm Prakash (Delhi Sadar)
C. Krishnan Nair (Outer Delhi)
Naval Prabhakar (Outer Delhi *Reserved*)

*JAMMU & KASHMIR—6

Bakshi Abdul Rashid
Thakur Das Malhotra
Sm. Krishna Mehta

---

* Nominated by the President

Maulana Abdur Rahman
Shekh Mohd. Akbar
A. M Tareq

HIMACHAL PRADESH—4

Nek Ram Negi (Mahasu *Reserved*)
Joginder Sen (Mandi)
Padam Dev (Chamba)

MANIPUR—2

Laisram Achow Singh (Inner Manipur)
Rungsung Suisa (Outer Manipur *Reserved*)

TRIPURA—2

Dasharatha Deb (Tripura)
Bangshi Thakur (Tripura *Reserved*)

* LACCADIVE, MINICOY & AMENDIVI ISLANDS—1

Koyilat Nallakoya
Lakhman Singh

* ANGLO-INDIANS—2

Frank Anthony
A. E. T. Barrow

RAJYA SABHA

Chairman—Dr S Radhakrishnan

Deputy Chairman—S V Krishnamoorthy

(Members)

ANDHRA PRADESH—18

Makkineni Basavapunnaiah
Shaik Galib
Dr. Raj Bahadur Gour
Akbar Ali Khan
Kishen Chand
Alluri Satyanarayana Raju
Mudumala Henry Samuel
V. C Kesava Rao
Veeramachineni Prasad Rao
Adduru Balarami Reddy
S Channa Reddy
Narottam Reddy
K. Suryanarayana
J. V K Vallabharao
Pydah Venkata Narayana
Villuri Venkataramana
T. J M Wilson
Sm. Yashoda Reddy

ASSAM—7

S. C Deb
Sm. Bedavati Buragohain
Sm. Pushpulata Das
Purna Chandra Sharma
M Tayyebulla
R Thanhlira
Joyabhadra Hagjer
Mahendramohan Choudhury

BIHAR—22

R G Agarwala
Kazi Ahmad Hussain
Theodore Bodra
M John
Kishori Ram
Sm Lakshmi N Menon
Kailash Bihari Lal
Mahesh Saran
Syed Mazhar Imam
Dr Purna Chandra Mitra
Kameshwara Singh
Braja Kishore Prasad Sinha
Ganga Sharan Sinha
Rajendra Pratap Sinha
Sm Jahanara
Rama Bahadur Sinha
R. D. Sinha Dinkar
Tajamul Hussain

---

* Nominated by the President.

Shah Mohd Umair
Sheel Bhadra Yajee
Avadeshwar Prasad Sinha
Kamta Singh

BOMBAY—27

Abid Ali
P N Rajbhoj
Dr Waman S Barlingay
Babubhai Chinai
Rajabhau Vithalrao Dangra
Somnath P Dave
T R Deogirikar
Narsingrao B Deshmukh
Ramrao Madhavrao Deshmukh
Venkat Krishna Dhage
Dr M D D Gilder
Rohit Dave
Lalji Pendse
B D Khobragade
G R Kulkarni
Lavji Lakhamshi
Premji Thobhanbhai Leuva
Deokinandan Narayan
Dahyabhai Patel
Dhairyashilrao Y Pawar
Dr Raghu Vira
S D Patil
Manilal Chaturbhai Shah
Jethalal H Joshi
M D Tumpalliwar
Dr D H Variava

KERALA—9

Sm K Bharathi
K Madhava Menon
Dr I J Thomas
Govindan Nair
K P Madhavan Nair
P Narayanan Nair
Sc[illegible]man
N C Sekhar
Subba Rao

MADHYA PRADESH—16

Niranjan Singh
Mohammad Ali
Benarsi Das Chaturvedi
Dr R P Dube
Sm Krishna Kumari
Ratanlal Kishorilal Malviya
Dayal Das Durre
Trimbak Damodar Pustake
Dr Raghubir Sinha
Ram Sahai
Sm Rukmani Bai
V V Sarwate
Sm Sita Parmanand
Captain Awadhesh Pratap Singh
Thakur Bhanu Pratap Singh
Gopi Krishna Vijaivargiya

MADRAS—17

Sm Ammu Swaminathan
T S Avinashilingam Chettiar
T V Kamalaswamy
S Chattanatha Karayalar
Dr A Ramaswami Mudaliar
P S Rajagopal Naidu
Sm T Nallamuthu Ramamurthi
[illegible]
Abdul Kalam
S Kamakshi [illegible] Iyer
G Rajagopalan
P D Rajan
T Thakur Ra[illegible]
T S Pattabhiraman
N M Lingam
S Venkataraman
Dawood Ali Mirza

MYSORE—12

B C Nanjundaiya
Janardhan Rao Desai
Sm Annapurna Devi Thimma Reddy
Mulka Govinda Reddy
Dr N S Hardiker
Raghavendra Rao
S V Krishnamoorthy Rao
M Govinda Reddy
B Shiva Rao
R I Basappa Shetty
Mohammed Valiulla
Sm Violet Alva

ORISSA—10

Prafulla Chandra Bhanj Deo
Harihar Patel

Biswanath Das
Dibakar Patnaik
Bibhudendu Misra
Bhagirathi Mahapatra
Maheswara Naik
Swapnananda Panigrahi
Abhimanyu Rath
Govind Chandra Misra

PUNJAB—11

Dr Anup Singh
Diwan Chaman Lall
Madhoram
Darshan Singh Pheruman
Jagan Nath Kaushal
Udham Singh Nagoke
M H S Nihal Singh
Raghbir Singh Panjhazari
Smt. Amrit Kaur
Giani Zail Singh
Jugal Kishore

RAJASTHAN—10

Hardeo Joshi
Adityendra
Swami Keshvanand
Jainarain Vyas
Tikkaram Paliwal
Abdul Shakoor
Smt. Sharda Bhargava
Dr K L Shrimali
Jaswant Singh
Vijay Singh

UTTAR PRADESH—34

Amar Nath Agarwal
Jagannath Prasad Agrawal
Akhtar Husain
Amolakh Chand
Smt Anis Kidwai
Jashaud Singh Bisht
Smt Chandravati Lakhanpal
Jogesh Chandra Chatterji
Nawab Singh Chauhan
A Dharam Das
Maulana Mohammad Faruqi
R. C. Gupta
Faridul Huq
Jaspat Roy Kapoor
Ahmad Said Khan
Dr Hriday Nath Kunzru
Purushottam Das Tandon
Shyam Dhar Misra
Z. A Ahmed
Tarkeswar Pande
Govind Ballabh Pant
Har Prasad Saksena
P. N. Sapru
Smt. Savitry Devi Nigam
Braj Bihari Sharma
Gopinath Singh
Ram Kripal Singh
Hira Ballabh Tripathi
Ram Prasad Tamta
Pt Sham Sundar Narain Tankha
Ajeet Pratap Singh
Mahabir Prasad
Bal Krishna Sharma
Algu Rai Shastri

WEST BENGAL—16

Atindranath Bose
Dr Niharranjan Roy
C C Biswas
Rajpat Singh Doogar
Nalinaksha Dutt
Santosh K Basu
Bhupesh Gupta
P D Himatsingka
Humayun Kabir
Abdur Rezzak Khan
Smt Maya Devi Chettry
Ansaruddin Ahmed
Satyendra Prosad Ray
Mriganka Mohan Sur
Surendra Mohan Ghose
Mehr Chand Khanna

JAMMU & KASHMIR—4

Budh Singh
Trilochan Dutta
Aga Syed Mohammad Jalali
Pir Mohammed Khan

DELHI—3

S K Dev
Onkar Nath
Begum Saddiqa Kidwai

HIMACHAL PRADESH—2

Anand Chand
Sm Lila Devi

MANIPUR—1

Lairamayum Lalit Madhob Sharma

TRIPURA—1

Abdul Latif

NOMINATED BY THE PRESIDENT.

S N Bose
Maithilisaran Gupta
Kakasaheb Kalelkar
Dr P. V. Kane
Prithviraj Kapoor
N R Malkani
A N Khosla
Sm. Rukmini Devi Arundale
M Satyanarayana
Prof A R Wadia
B V (Mama) Warerkar
Dr Tarachand

INDIA'S REPRESENTATIVES ABROAD

COUNTRY		*DESIGNATION AND ADDRESS*
Afghanistan	S N Haskar	Ambassador Shahre Naud, Kabul
Argentina	N Raghavan	Ambassador, Lavalle 467, Buenos Aires
Belgium	M A Rauf	Ambassador (*Concurrently Minister to Luxemburg*,) 55 Avenue Louise, Square du Bois Brussels
Brazil	M K Kripalani	Ambassador, Rua Barao do Flamengo, 22, Aptos 801/802, Rio de Janerio
Bolivia	R S Mani	Ambassador, Santiago (*Concurrently Ambassador to Chile*)
Burma	Lalji Mehrotra	Ambassador, Oriental Buildings, 545/47 Merchant Street Rangoon.
China	G Parthasarathi	Ambassador, 32, Tung Chiao Min-Hsiang, Peking (*Concurrently Ambassador to Mongolia*).
Chile	P S Mani	Ambassador to Chile Santiago
Cambodia	V M M Nair	Ambassador, Phnom Penh, Cambodia.
Czechoslovakia	B K Acharya	Ambassador, 22, Thunovaska, Prague III (*Concurrently Ambassador to Rumania*)
Denmark	Kewal Singh	Ambassador Resident in Stockholm.
Ethiopia	N S Gill	Ambassador, P B No 528, Addis Ababa
France	K M Panikkar	Ambassador 15, Rue Alfred Dehodencq, Paris
Germany (West)	B F H B Tyabji	Ambassador, 262, Koblenzostrasse, Bonn
Greece	Nawab Ali Yavar Jung	Ambassador, Athens (Resident in Belgrade) and Minister to Bulgaria.

Indonesia	J. N Khosla	Ambassador, P B No 118-44, Kebon Sirih, Djakarta
Iran	T N Kaul	Ambassador, Avenue Shah Reza, Teheran
Iraq	I S Chapra	Ambassador, 23/2/A1, Tahari St., Waziriah, Baghdad
Ireland	Mrs V L Pandit	Ambassador (Embassy of India, 60 Fitz William Square, Dublin (Ambassador Resident in London)
Italy	Khub Chand	Ambassador, via Francesco Denza, 36 Rome (*Concurrently Ambassador to Albania*)
Japan	C P N Singh	Ambassador, [illegible] Building, 18, 2 Chome Marunouchi Chiyoda ku, Tokyo
Laos	Sirdar Singh of Khetri	Ambassador to Laos, Vientiane
Mongolia	G Parthasarathi	Ambassador Resident in Peking
Morocco	R C Goburdhun	Ambassador, 30 Avenue Allal Ben Abdellah, Rabat, Morocco
Mexico	M C Chagla	Ambassador (*Concurrently Ambassador to U S A*) 40, 5th Piso, Mexico City
Nepal	Bhagwan Sahay	Ambassador, Kathmandu, Nepal
Netherlands	John A Thivy	Ambassador, Buitenrustweg 2, The Hague
Norway	Maharao Madan Sinhji of Kutch	Ambassador, Oslo, Norway
Philippines	Gen M S Chopra	Ambassador, 1836 Nebraska, Malate, Manila
Poland	K P S Menon	Ambassador Resident in Moscow
Rumania	J N Khosla	Ambassador Resident in Prague
Sweden	Kewal Singh	Ambassador, Stockholm (*Concurrently Ambassador to Denmark and Minister to Finland*)
Switzerland	M K Vellodi	Ambassador, [illegible] Thunstrasse, Berne (*Concurrently Minister to Vatican and Austria*)
Sudan	R G Rajwade	Ambassador, Ismail Pasha Avenue, Khartoum, Sudan
Saudi Arabia	M K Kidwai	Ambassador, Jedda
Thailand	A M Sahay	Ambassador, 37 Phyathai Road, Bangkok
Turkey		Ambassador, Ankara
Spain	Mrs V L Pandit	Ambassador (*Concurrently High Commissioner of India to U K*)

United Arab Republic	R. K. Nehru	Ambassador, 29, Sharia Hassan Pasha, Cairo (*Concurrently Minister of Labanon and Libya*).
U.S.A.	M. C. Chagla	Ambassador, 2107, Massachusetts Avenue N.W. Washington, 8 D.C. (*Concurrently accredited to Mexico and also as Minister to Cuba*)
U.S.S.R.	K. P. S. Menon	Ambassador, 6 & 8, Ulitsa Obukha, Moscow (*Concurrently Minister to Hungary and Ambassador to Poland*)
Yugoslavia	Nawab Ali Yavar Jung	Ambassador, Belgrade (*also concurrently Minister to Bulgaria and Ambassador to Greece*)

2. HIGH COMMISSIONERS

Australia	P. A. Menon	High Commissioner (*Concurrently to New Zealand*), Civic Centre, Canberra
Canada	C. S. Venkatachar	High Commissioner, 0), Mclaren Street, Ottawa
Ceylon	Y. D. Gundevia	High Commissioner, 67, Turret Rd., Colombo
Ghana	B. K. Kapur	High Commissioner Accra, Ghana.
New Zealand	P. A. Menon	High Commissioner, New Zealand ([illegible] *of Australia*)
Pakistan	Rajeswar Dayal	High Commissioner, Valika Mahal, Jehangir Sethna Rd, New Town, Karachi 5
	K. V. Padmanabhan	Deputy High Commissioner
	P. K. Banerjee	Asst High Commissioner, Rajshahi.
	S. C. Nandy	Dy. High Commissioner, Dacca
United Kingdom	Mrs Vijayalakshmi Pandit	High Commissioner, India House, Aldwych, London W.C. 2 (*Concurrently Ambassador to Ireland*).
Malaya	S. K. Banerjee	High Commissioner Kuala Lumpur.

3. LEGATIONS

Austria	M. K. Vellodi	Envoy Extraordinary & Minister Plenipotentiary (*Also Ambassador ot Switzerland*), Vienna
Albania	Khub Chand	Minister, resident in Rome.
Bulgaria	Nawab Ali Yavar Jung	Minister, Belgrade (*Concurrently Ambassador to Yugoslavia and Greece*).

Cuba ..	M C Chagla	Minister, resident in Washington.
Finland ..	Kewal Singh	Minister, resident at Stockholm
Hungary ..	K P S Menon	Minister, resident at Moscow
Lebanon ..	R K Nehru	Minister, Cairo (*Concurrently Ambassador United Arab Republic*)
Libya ..	R K Nehru	Minister resident at [illegible] (*Concurrently Ambassador U A R*)
Luxemburg ..	M A Rauf	Minister, resident in Brussels
Vatican ..	M K Vellodi	Minister, resident at Berne

4 SPECIAL MISSIONS

Sikkim .	Apa B Pant	Political Officer Gangtok, Sikkim
Bhutan ..	Apa B Pant	Do
United Nations	C S Jha	Permanent Representative of India to U N, with the rank of Ambassador India House, 3, East 4th St New York

CONSULATE GENERALS

Belgian Congo	Prem Krishen	Consul General resident in Nairobi
Copenhagen ..	Victor I Strand	Hony Consul General, Strandvagen, 17 IV Stockholm
Damascus ..	P N Menon	27 Chare al Jala, Damascus
Geneva ..	D N Chatterjee	Consul General Geneva [illegible] Place des Eaux Vives Geneve
Helsinki ..	Jubo Sivio	Hony Consul General c/o Legation of India Stockholm
Lhasa (Tibet)	S L Chhibber	Consul General of India Lhasa P O Gyantse Tibet
Hamburg ..	S V Patel	Consul General Hamburg
Madagascar	J A Shah	Consul General 110 Tananarive Madagascar
New York .	M Gopala Menon	Consul General 3 East [illegible] Street, New York
Sourabaya	Sampuran Singh	Consul Sourabaya
Khorramshahr	R S [illegible]	Consul Khorramshahr
Kobe .	P L Bhalla	Consul Kobe Japan
Mandalay ..	K I S Pandit	Vice Consul Mandalay
Antwerp ..	H S Gopal Rao	Vice Consul Antwerp
Berlin .	A R Sethi	Consul Berlin 15
Muscat ..	[illegible]	Consul Muscat
Saigon ..	S Gupta	Consul General 213 Rue Catinat Saigon
Surinam (Dutch Guiana) ..	Dr N V Raj Kumar	Consul General, Resident at Trinidad

San Francisco ..	Raghunath Sinha	Consul-General, 417, Montgomery St. San Francisco.
Shanghai ..	V. S. Charry	Consul General, Shanghai.
Medan ..	Mehar Singh	Consul, India, Medan (*Indonesia*).
Jalalabad ..	D. Sareen	Vice Consul for India, Jalalabad.
Kandahar ..	A K. Bakshi	Vice-Consul for India, Kandahar.
Zahidan (Iran)	S. D Kapoor	Vice-Consul of India, Zahidan (East Iran).
Basra (Iraq) ..	Dr. Puran Singh	Hon. Consul for India, Basra.
Ruanda Urundi	Prem Krishen	Consul-General, resident at Nairobi.
Viet Nam (North) ..	A. G. Meneses	Consul General, 34. Ngo Quyen, Hanoi.
Gyantse (Tibet)	R. S. Kapur	Indian Trade Agent, Gyantse (Tibet).
Gartok ..	Lakshman Singh Jangpangi	Indian Trade Agent, Gartok (West Tibet)
Yatung ..	K C Johorey	Indian Trade Agent, Yatung (Tibet.)

6 COMMISSIONS

Aden ..	Jagat Singh	Commissioner for Govt of India, Aden
East Africa (British) ..	Prem Krishen	Commissioner for India, (with the rank of Minister), Accredited to Rhodesia and Nayasaland as *Commissioner* and the Belgian Congo and Ruanda Urundi as *Consul-General*, Duke St., Nairobi, Kenya.
West Indies and (British) Guiana	N. V. Rajkumar	Commissioner, 78 Marine Square, Port of Spain (West Indies).
Fiji ..	K D. Bhasin	Commissioner, V B. Building, Waimanu Road, Suva (Fiji).
Central African Federation (Br.)	Prem Krishen	India House, 90 A, Victoria Street, Salisbury, S Rhodesea
Mauritius ..	Jagannath Dhamija	Commissioner, Port Louis, Mauritius.
Gold Coast .		Commissioner, Station Road, Accra (*also accredited to Nigeria*).
East Africa (Br)	Indarjeet Bahadur Singh	Commissioner, B. E. Africa with jurisdiction to the Federation of Rhodesea and Nayasaland, Nairobi
Hong Kong ..	B. P Adarkar	Commissioner, Hong Kong.
Singapore ..	S. K. Banerjee	Commissioner, Grange Road, Singapore.
Uganda ..	Prem Krishen	Kampala (Uganda).
Nigeria ..	P. K. Guha	Asst. Commissioner, Lagos (Nigeria).

INDIAN GOVERNMENT TRADE REPRESENTATIVES

EUROPE

Name and Address	*Sphere of Activities*
T. Swaminathan, I.C.S., Minister (Economic) to the High Commission for India in U. K., India House, Aldwych, London.	U. K. & Eire.
H. K. Kocher, 1st Commercial Secy. to the Indian Embassy, 15, Rue Alfred Dehodencq, Paris XVI eme (France).	France & Norway.
P. N. Menon, 1st Secy. to the Embassy of India Via Francisco, Denze 36, Rome (Italy).	Italy, Greece & Yugoslavia.
Dr. S. P Chablani, 1st Secy. (Commercial) to the Embassy of India in Germany, 262, Koblenorstarsse, Bonn, W. Germany.	Germany.
S. V. Patel, Consulate of India, Consul 608/5, Sprinkenof, Hamburg.	State of Hamburg Bremen & Schieswigg Hollstein.
V. C. V. Raghavan, First Secretary, (Commercial) Legation of India, 17 Geyergasse.	Austria & Hungary.
M. V. Deo, First Secretary (Commercial) to the Embassy of India.	Berne, Switzerland.
H. C. Hogg, 2nd Secy. (Commercial), Embassy of India in Belgium, 585, Avenue Louise Brussels.	Belgium.
H. S. Gopal Rao, Vice-Consulate at Antwerp,	
K. C. Segal, 2nd Secy. to the Embassy of India, Strandvagen 47, Stockholm.	Sweden, Finland, Denmark.
Siva Rao, 2nd Seçy. (Commercial) to the Embassy of India, 22 Thunovaska, Prague-III.	Czechoslovakia.
2nd Secy. (Commercial) to the Embassy of India No. 6 & 8, Ulitses Obukha, Moscow.	U.S.S.R.

AMERICA

S. G. Ramchandran, 1st Secy. (Commercial), Embassy of India, 2107 Massachuestts Avenue N. W. Washington 8 D.C.	U.S.A. & Mexico.
M. K. Roy, 1st Secy. (Commercial) to the High Commissioner for India in Canada, 200 Mclaren St., Ottawa.	Canada.

AFRICA

Indian Trade Commissioner, Jubilee Insurance Building P.B. 614 Mombassa (Kenya)	East Africa (Kenya), Uganda and Tanganyika, Zanzibar, S. Rhodesia, N. Rhodesia, Nyasaland
K. R. [illegible] Counsellor Embassy of India in Egypt, [illegible] St. Cairo	Egypt, Lebanon, Cyprus and Libya
M. R. [illegible] Sec. to Embassy of India [illegible] Khartoum	Sudan

AUSTRALIA AND NEW ZEALAND

H. A. [illegible] Commissioner [illegible] House, Sydney (Australia)	[illegible] and Over[illegible] Norfolk Island
S. K. Chaudhury, Esq. (C[illegible]) High C[illegible] Windsor [illegible] Wellington (New Zealand)	

ASIA

D. Hemandi [illegible] Secretary (Co[illegible]) Embassy of India in Japan [illegible] Tokyo (Japan)	
V. C. [illegible] Secretary [illegible] the [illegible] Building P.O. Box No. [illegible]	
N. K. [illegible] First Secretary [illegible] to the Embassy of India Rangoon [illegible] Street Post Box No. [illegible] (Burma)	
N. [illegible] First Secretary (Commercial) to [illegible] High Commission of India in Pakistan, Chartered Bank Chambers [illegible] Road New Town Karachi 5	
Second Secretary (Commercial) to the High Com[illegible] mission for India in Pakistan, [illegible] Mission Road Dacca (East Pakistan)	
A. K. Dhu[illegible] First Secretary (Commercial) to the Commissioner of India in Malaya [illegible] Road P.O. No. 556 Singapore (Malaya)	Malaya
Third Secretary to the Embassy of India [illegible] Phyathai Road Bangkok (Thailand)	Thailand
Commercial Section Legation of India 914 Nebraska, Manila (Philippines)	Philippines Under the Minister, Legation of India at Manila.

B R Abayankar, Second Secretary (Commercial) to the Embassy of India, P B No 1[illegible], 44, Kebon Sirih, *Djakarta* (Indonesia)	Indonesia
Jagat Singh, Commissioner for the Government of India in Aden, *Aden*	Aden, British Somaliland and Italian Somaliland
R [illegible] Khan, Second Secretary (Commercial) to the Embassy of India, [illegible] *[illegible] (Iran)*	[illegible]
S [illegible] Second Secretary (Commercial) to the Embassy of India, [illegible]	[illegible] (An[illegible] [illegible] Gulf (K[illegible] [illegible] Bahrain)
P [illegible] Embassy of India [illegible]	[illegible]
[illegible] Second Secretary (Commercial) to the [illegible]	Hong Kong
[illegible]	[illegible]

FOREIGN DIPLOMATS IN INDIA

AMBASSADORS

Country	*Designation*	*Name*
Afghanistan	Ambassador	H E [illegible] Mohammed [illegible] Road, [illegible] Delhi
Argentina	Do	[illegible] 201, [illegible] New Delhi
[illegible]	Do	[illegible]
Brazil	Do	H E [illegible] de [illegible] Road, [illegible] Delhi
Burma	Do	H E [illegible] Road, [illegible] Delhi
Cambodia	Do	H E [illegible] 5, Golf Links, New Delhi
China	Do	H E [illegible] Jind House, [illegible] Road, New Delhi
Czechoslovakia	Do	H E Ing Jiri Nosek 22/39, Kautilya Marg New Delhi
Chile	Do	A F Miguel S Fernandez, 23, Prithviraj Rd, New Delhi

Denmark	Do	H E Viggo Theis-Nielsen 1, Humayun Road, New Delhi
Ethiopia	Do	H E Ras Haile Selassie Imru, 29, Prithviraj Rd, New Delhi.
France	Do	H E Count Stanislas Ostrorog, 2, Aurangzeb Road, New Delhi
Germany, West	Do	H E Dr Wilhelm Melchers, Mathura Road, New Delhi
Greece	Do	H E Hadji Vassiliou, New Delhi
Indonesia	Do	H E [illegible] Abdul Kadir 50A, Chanakyapuri New Delhi
Iran	Do	H E M Kazemi, 1, Hailey Lane, New Delhi
Iraq	Do	H E Syed Hasan Jamil, 21, [illegible] Road New Delhi
Italy	Do	H E Count [illegible] Del [illegible] Road New Delhi
Japan	Do	H E [illegible] New Delhi
Laos	Do	H E Prince [illegible] Khang New Delhi
Mexico	Do	H E [illegible] M Gregor, New Delhi
Mongolia	Do	H E [illegible] Golf Link Area New Delhi
Morocco	Do	H E Al Arabi [illegible], Ashoka Hotel New Delhi
Nepal	Do	H E Lt Gen [illegible] Shumshere Jung Bahadur Rana Barakhamba Road New Delhi
Netherlands	Do	H E H A Helb 4 Ratendone Road New Delhi
Norway	Do	H E Hans Olav, 21, Sundar Nagar New Delhi
Philippines	Do	H E Manuel A Alzate, 2, Thapar Building [illegible] Janpath, New Delhi
Poland	Do	H E Juliusz Katz Suchy, 22, Golf Link Area, New Delhi
Rumania	Do	H E Nicolae Cioroiu New Delhi.
Saudi Arabia	Do	H E Shaikh Yusuf Alfozan, 6, Hardinge Avenue, New Delhi
Sweden	Do	H E Mrs Alva Myrdal, 27, Prithviraj Road, New Delhi
Switzerland	Do	H E Dr Clement A Rezzonico, 1, Radial Road, New Delhi.

Thailand	Do.	H. E. Bun Charoenchai, Chanyakapuri, New Delhi.
Sudan	Do.	H. H. Syed Rahmatulla Abdulla, 197, Sundarnagar, New Delhi.
Spain	Do.	H. E. Count de Artaza, 12A, Prithviraj Road, New Delhi.
Turkey	Do.	H. E. Kadri Rizan, 27, Jor Bagh, New Delhi.
United Arab Republic	Do.	H. E. Omar Abou-Richeh, 6 Ratendone Road, New Delhi.
U.S.A.	Do.	H. E. Ellsworth Bunker, Chanyakya Road, New Delhi.
U.S.S.R.	Do.	H. E. K. Ponomarenko, Travancore House, New Delhi.
Yugoslavia	Do.	H. E. Dasan Kueder. 13, Sundarnagar, New Delhi

HIGH COMMISSIONS

Australia	High Commissioner	H. E. Mr. W. R. Crocker, Connaught Place, New Delhi.
Canada	Do.	H. E. Mr. Chester Ronning, 4, Aurangzeb Road, New Delhi.
Ceylon	Do.	H. E. Sir Richard Aluwihare, 224, Jor Bagh, New Delhi.
Pakistan	Do.	H. E. Mian Ziauddin, Shershah Road, New Delhi.
U. Kingdom	Do.	H. E. Malcolm Macdonald, 6 Tees January Marg, New Delhi.
Ghana	Do.	H. E. John Bogolo Frezuah, 2, Golf Links, New Delhi.
Malaya	Do.	H. E. Chelvansugham MacIntyre, 50, Kautilva Marg.
New Zealand	Do.	H. E. R. L. Grover, 10, Janpath, New Delhi.

LEGATIONS

Albania	Minister.	H. E. Ulvi Lulo.
Austria	Minister.	H. E. Dr. Arno Haluse, 2-5, Theatre Communication Building, New Delhi.
Bulgaria	Envoy Extraordinary & Minister Plenipotentiary.	Dr. Lyuben Poper, 198; Golf Link Area, New Delhi.
Finland	Envoy Extraordinary	H. E. Dr. Aaro Pakaslahti, 43A, Prithviraj Road, New Delhi
Holy See	Apostolio Internuncio	H. E. The Most Revd. James Robert Knox, Niti Marg, Chanakyapuri, New Delhi.

Hungary	Envoy Extraordinary	H. E. Aladar Tamas, 11, Northern Extension Area, New Delhi.
Cuba	Envoy Extraordinary & Minister Plenipotentiary	H. E. Jorge Govantesy Aquirre, New Delhi.
Lebanon	Envoy Extraordinary & Minister Plenipotentiary	H. H. Halim Abu Izzeddin, Ashoka Hotel, New Delhi.

TRADE REPRESENTATIVES OF OVERSEAS GOVERNMENTS IN INDIA

Name of the Country	*Designation*
Afghanistan	Economic Attache to the Royal Afghan Embassy in India, 21, Ratendone Road, New Delhi.
Austria	Austrian Trade Representative in India, Queen's Mansions, Bastion Road, Fort, Bombay.
Australia	Australian Government Trade Commissioner in India, Mercantile Bank Building, 52/66, Mahatma Gandhi Road, Bombay and 2, Fairlie Place, Calcutta.
	Australian Government Trade Commissioner in India, 2, Fairlie Place, Calcutta.
Belgium	Commercial Counsellor to the Belgian Embassy in India, Theatre Communication Building, Connaught Place, New Delhi.
Bulgaria	Trade Representative, 98, Golf Link Area, New Delhi; Asst. Trade Commissioner; Narriman Point, Marine Drive, Bombay.
Burma	1st Secy. (Commercial), 2, Kitchner Road, New Delhi; Asst. Trade Commissioner, 12, Dalhousie Sq., East, Calcutta.
Canada	3rd Secy. (Commercial) to the High Commission for Canada in India, 4, Aurangzeb Road, New Delhi.
	The Canadian Government Trade Commission, Gresham Assurance House, Mint Road, Bombay.
Ceylon	Trade Commissioner for Ceylon in India, Ceylon House, Bruce Street, Bombay.
China	Counsellor for Commercial Affairs to the Embassy of the People's Republic of China in India, Jind House, Lytton Road, New Delhi.
	Trade Agent of People's Republic of China, Kalimpong and 8, Camac Street, Calcutta.

Czechslovakia	..	Trade Representation of the Czechoslovak Republic, 65, Golf Link Area, New Delhi. Trade Representation of the Czechoslovak Republic, Calcutta Branch, P-38, Mission Row Extension, Calcutta-13. Trade Representation of the Czechoslovak Republic, Mount Road, Madras. Trade Representation of the Czechoslovak Republic, Bombay Branch, Kasturi Building, Jamsedji Tata Road, Bombay 1.
Denmark	..	Trade Commissioner for Denmark in India, Pollonji Mansion, New Cuffee Parade, Bombay.
Egypt	..	Commercial Attache to Egyptian Embassy, Swiss Hotel, Delhi.
Finland	..	Commercial Counsellor to the Finnish Legation in India, 1, Humayun Road, New Delhi.
France	..	Counsellor for Economic Affairs, 2, Aurangzeb Road, New Delhi.
W. Germany	..	Commercial Counsellor to the Federal Republic of Germany, 86, Sundar Nagar, Mathura Road, New Delhi. Consul General of the Federal Republic of Germany, 29, Woodhouse Road, Colaba, Bom. 15. Consul General for the Federal Republic of Germany, 59/C, Chowringhee Road, Calcutta. Consul General for the Federal Republic of Germany, 378, Netaji Subhas Road, Madras.
E. Germany	..	Trade Representation of the German Democratic Republic, 23, Curzon Road, New Delhi ; Mistri Bhavan, 22, Dinsha Wacha Road, Bombay ; P 17, Mission Row Extension, Calcutta.
Ghana	..	Ashoka Hotel, New Delhi.
Hungary	..	Trade Representative to the Hungarian Legation in India 10, Pusa Road, New Delhi; and 45 Coffee Parade, Bombay. 5.
Indonesia	..	Counsellor of Economic Affairs, Indonesian Embassy in India, 50 A, Chanakyapuri, New Delhi.
Italy	..	Commercial Counsellor, Embassy of Italy in India, 17, York Road, New Delhi.
Japan	..	First Secy. (Commercial), Japanese Embassy in India,, Chanakyapuri, New Delhi.
Netherlands	..	Commercial Attache to the Netherlands Embassy in India, 298, Bazar Gate Street, Bombay.
New Zealand	..	New Zealand Government Trade Commissioner in India, Mercantile Bank Building, 2nd Floor Mahatma Gandhi Road, Bombay-1.

Norway ..	Trade Commissioner, Imperial Chambers, Wilson Road, Bombay 1 and Asst. Trade Commissioner, 14, Netaji Subhas Road, Calcutta.
Pakistan ..	Commercial Secretary, to the High Commission for Pakistan in India, Sher Shah Road Mess, New Delhi.
Poland ..	Commercial Counsellor, Embassy of the Polish People's Republic in India, 44, Sundarnagar, New Delhi and 28, Stephen Court, 18A, Park Street, Calcutta.
Rumania ..	Trade Representative for Rumania in India, 2, Churchgate Reclamation, Bombay-1.
Spain ..	Asst. Trade Commr. for Spain in India, Dinshaw Vacha Road. Bombay.
Sweden ..	Trade Commr. for Sweden, Nicol Road, Bombay.
Switzerland ..	Commercial Secy., Swiss Legation in India, Theatre Communication Building 1, Radial Road, New Delhi. Swiss Trade Commissioner Gresham Assurance Building, Sir P. Mehta Road, Bombay.
Turkey ..	Commercial Attache, Turkish Embassy in India, Hotel Ambassador, Delhi.
United Kingdom ..	Economic Adviser to the High Commissioner and Senior U. K. Trade Commissioner in India, 6, 6 Tees Marg Road, New Delhi. Principal U. K. Trade Commissioner at Calcutta, 1, Harrington Street, Calcutta-16. Principal Trade Commissioner at Bombay, Mahatma Gandhi Road, Bombay-1. U. K. Commissioner at Madras, P.O. Box 1575, Armenian Street, Madras.
U.S.A. ..	Counsellor for Economic Affairs, Embassy of the U.S.A. in India, Bahawalpur House, Sikandra Road, New Delhi. Consul-General for U.S.A., 5/1, Harrington St., Calcutta-16. Consul-General for U.S A., Nicol Road, Bombay-1. Consul-General for U.S.A., 150B, Mount Road, Madras.
U.S.S.R. ..	Trade Representative of U.S.S.R., Travancore House, New Delhi. *Branches at :* 4, Camac Street, Calcutta-26, and Vasundhara House, Bombay-26.

Note—In the case of countries which have no Commercial Offices, Commercial matters are handled by their Deplomatic and or Consular Missions in India.

WHO'S WHO

Abdullah, Sheikh Mohammad, M.Sc.—born December, 5, 1905 near Srinagar; graduated from Lahore and M.Sc. from Aligarh University, 1930; school master under Kashmir Government; came in the public life in 1931; first started Muslim Conference with communal outlook but turned it into National Conference in 1938; jailed several times, notably in 1946 for *'quit Kashmir'* agitation and released in 1947; President, All India States Peoples' Conference; head of the Emergency Administration of Kashmir during Pakistan tribal raid in 1947; M.P. for Kashmir till 1952; Chief Minister, Kashmir 1948—53; was under detention from 1953-58.

Acharya, Chintamani, M.A., LL.B.—born Dec., 9, 1893; educated at Ravenshaw College; Govt. Pleader and Public Prosecutor and Govt. Advocate for 12 years; was Vice-Chancellor, Utkal University.

Ahmed, Sir Syed Sultan, K.C.S.I. born 1880; called to the Bar 1905; Government Advocate, Patna; Judge, Patna High Court, 1919-20; Vice-Chancellor, Patna University, 1929-30; member, Governor's Executive Council, Bihar and Orissa, 1932; member, Viceroy's Executive Council, 1937; 1941-1945; Legal Adviser, Chamber of Princes, 1945-47.

Ahmed, Muzaffar—born 1889; member of the Communist Party of India since its beginning; convicted in Meerut Communist Conspiracy case 1924-28; edited several Bengali dailies and weeklies, such as *Navayug* and *Ganabani*; Member, Politburo, Central Committee of the Communist Party of India.

Aiyer, Sir C. P. Ramaswami, K.C.I.E., C.I.E.—born 12th Nov., 1879. joined Madras Bar in 1903; Member, R.T.C.; Law Member, Government of India 1931 and 1932; Member, Council of State, 1930; Vice-Chancellor, Travancore University, 1937; Vice-Chancellor, Annamalai University; Dewan of Travancore, 1936-47; Member, Press Commission, 1953; was Vice-Chancellor, Banaras Hindu University.

Ali, Sir Syed Fazl, Bar-at-Law—born Sept. 9, 1886; educated at Banaras, Allahabad and Middle Temple, London; Advocate, Patna; appointed Judge, Patna High Court in 1928. was knighted in 1941 and was appointed Chief Justice of the Patna High Court, 1943; Chairman, R.I.N. Mutiny Enquiry Commission, 1946; Member, Calcutta Disturbance Enquiry Commission 1946; India's delegate to U. N. 1947; was elected Chairman of the Fifth Committee of the U. N during that session; Judge, Federal Court of India 1947-50; Judge, Supreme Court of India, 1950-52; Governor of Orissa 1952-54; Chairman, States Reorganisation Commission 1953-55; received the award of "*Padma Bibhusan*"; (1956), Governor of Assam from 1956.

Ali Yavar Jung Bahadur, Nawab—born in 1905; educated at the Nizam's College, Hyderabad and Queen's College, Oxford; was Professor of History, Osmania University, Hyderabad 1927-34; Secretary to the Government of Hyderabad of certain departments 1936-41; Minister of Hyderabad Government 1946-47; Vice-Chancellor, Osmania University 1948-52; Ambassador of India to Egypt and concurrently Minister to Lebanon and Libya; 1954-58; Indian delegate to the General Assembly of the U. N. in 1946-50; Member of the Indian National Commission for UNESCO. 1950; Indian Ambassador to Yugoslavia from 1958.

Ali Zahir, Syed—born March 21, 1897; educated at Allahabad and Oxford; called to Bar (Middle Temple) in 1921; General Secretary, All Parties Shia Conference; Member, U. P. Legislative Assembly 1937-46; Member, Lucknow University Court; Member, Lucknow Municipal Board; Law Member, Interim Central Government, 1946; India's Ambassador to Iran, 1947-50; Minister, U.P. Government from 1951.

Alva, Joachim—born Jan. 21. 1907; educated at Mangalore and Elphinstone College, Bombay; suffered three years' imprisonment for Congress cause; Advocate, Bombay High Court; Founder and Editor, *Forum* (1943); Member, All India Newspaper Editors' Conference; Sheriff of Bombay, 1949; Member, Lok Sabha, 1952; a noted journalist.

Alva, Mrs. Violet—born in 1908 at Ahmedabad; educated at Bombay; studied law and practised as an advocate; was Honorary Presidency Magistrate at Bombay and Justice of the Peace; was Vice-President of the All-India Christian Congress 1946; founder and editor *Begum* and later *Indian Woman*, was a member of the Indian Press delegation to Egypt 1950; first woman to be elected to the Standing Committee of the All-India Newspaper Editors' Conference 1952; was member of the Bombay Legislative Council 1947-52; now Deputy Minister of Home Affairs, Government of India, 1957.

Anthony, Frank Reginald, B.A., Bar-at-Law—born Sept. 25, 1908 and educated at Robertson College, Jabalpur, Law College, Nagpur and Inner Temple, London; President, All-India Anglo-Indian Association; President, National Union of Railwaymen; Member, Central Assembly 1942-45; Member, Sapru Conciliation Committee 1945; Member, National Defence Council 1942-45, member, Central Pay Commission 1945; delegate, General Assembly of U.N. 1946 and Parliamentary Commonwealth Conference 1948; now member, Lok Sabha.

Aney, Madho Srihari, M.A., B.L.—b. Aug. 29, 1880; educated at Morris College, Nagpur; joined Congress in 1908; thrice member, Legislative Assembly C. P. and Berar; joined C. D. Movement, 1930 and suffered imprisonment; Member, Congress Working Committee, 1924-25 and 1931-34; President, Berar P.C.C. 1920-30; was a prominent member of the Congress Nationalist Party and Hindu Mahasabha; Acting President of the Congress 1933; started All-India Hindu League; Member, Viceroy's Executive Council, 1941-43; India's Representative in Ceylon upto 1947; Member, Constituent Assembly of India, 1947-48, Governor of Bihar, 1948-52; Member of the Lok Sabha.

Anand. Dr. Mulk Raj, B.A., Ph.D.—b. Dec. 12, 1903 in Peshawar; educated at the Punjab, London and Cambridge Universities; Lecturer in literature and philosophy to the London County Council; editor of various magazines; won research scholarship and studied philosophy in London and Cambridge; was broadcaster, B.B.C.; was film-script-writer at the British Ministry of Information; won fame as writer of novels '*Colie*' and '*Untouchable*' *Two Leaves and a Bud*' describing the life of Indian masses; now editor of *Marg*, famous art journal; author, novelist and critic.

Ayyangar, M. Ananthasayanam—born Feb. 4, 1891, educated at Pachiappa's College, Madras and Law College, Madras; member, Municipal Council, Chitoor; member, Fiscal Commission; member, Constituent Assembly of India; President, Harijan Sevak Sangh; member, A.I.C.C.; member, Central Advisory Board of Education; imprisoned in 1940-41 and 1942-44; was member, Central Legislature; Delegate, Commonwealth Parliamentary Conference, Ottawa, in 1952; Deputy Speaker, House of the People, 1952-56; Speaker, Lok Sabha from 1956.

Barua, Dr. Birinchi Kumar, M.A., B.L., Ph.D. (Lond.)—born Nov. 20, 1910; educated at Calcutta, London, Oxford and Upsala (Sweden); member, Official Language Commission, 1955-57; Professor and Dean of the Faculty of Arts, Gauhati University, writer in Assamese and English.

Bakshi, Ghulam Mohammad—born July 1907; began his life as a village teacher; joined Kashmir National Conference in his early days and had to go underground several times; arrested and imprisoned four times for his political activities; was Deputy Prime Minister, Jammu and Kashmir; Chief Minister, Jammu & Kashmir from 1953.

Basu, Jyoti, B.A.—born July 8, 1914; educated at Calcutta University, Bar-at-Law, Calcutta High Court; Member, Communist Party since 1940; Member, Politburo of the Party; detained several times under Preventive Detention Act; member, Bengal Legislative Assembly.

Bhavanagar, Maharaja of; Commodore H. H. Maharaja Shri Sir Krishna Kumarsinhji Bhavsinhji, K.C.I.E.—born May 19, 1912; educated at Harrow; succeeded to the Gadi on July 17, 1919; invested with full ruling powers on April 18, 1931; His State along with other States joined together to form Saurastra; was Rajpramukh of Saurashtra, 1948; Governor of Madras 1948-52.

Bhabha, Dr. Homi Jehangir, Ph.D. (Cantab), F.R.S.—born October 30, 1909; educated at Bombay and Cambridge; took mathematical tripos there; awarded the Rouse-Ball travelling studentship in mathematics in 1932; worked under famous Prof. E. Fermi in 1933-34 in Rome and under Prof. H. H. Kramer in Utrecht; was awarded Issac Newton studentship, 1934; lectured at Cambridge on cosmic radiation, nuclear physics; Professor, Bangalore Indian Institute of Science 1942-45; Chairman, Atomic Energy Commission, Government of India; now Director, Tata Institute of Fundamental Research, Bombay; elected F.R.S. in 1941. President, Indian Science Congress 1951; President, Atoms for Peace Conference, Geneva, 1955.

Birla, Ghanshyamdas—born 1894 in Jaipur State; Managing Director of Birla Bros. Ltd., which manage jute, cotton, sugar and woollen mills, collieries, bank and insurance companies, national and provincial daily and weekly newspapers, tea gardens, factories which manufacture motor cars, bicycles, textile machinery, rayon, paper, plastics, radios, small tools, ball bearings, boilers, linoleum, carpets, heavy chemicals and non-ferrous metals, cotton mills, sugar mills, zamindari, etc., all over India; was member of the Legislative Assembly; President, Indian Chamber of Commerce, Calcutta 1924; and of the Federation of Indian Chamber of Commerce 1929; member, Indian Fiscal Commission on Labour, 1930; Delegate to the I.L.O. at Geneva, 1927; member, Second R. T. C.; Chairman, All India Harijan Sevak Sangha.

Bhave, Acharya Vinobha—born Sept. 11, 1895 in Kolaba district of Maharashtra; educated at Baroda College, Baroda; gave up studies and left home and went to Banaras to study Sanskrit; met Gandhi at Banaras and joined his Sabarmati Ashram; was named by Mahatma Gandhi as his first representative in the C. D. Movement; was director of the Mahila Ashram, Wardha for a long time; imprisoned for Congress movement; originator of Bhoodan movement; has written many religious books.

Bhargava, Dr. Gopichand—b. March, 1899; educated at Lahore, entered politics under Lala Lajpat Rai; Member, Punjab Legislative Council 1927-29; jailed for non-co-operation movement 1942-43; member, Punjab Legislative Assembly, 1937 and leader of the Opposition again in 1946; was member of the Punjab Partition Committee; Trustee, Village Industries Association, Chief Minister, Punjab 1947-49.

Brahm Prakash—b. in East Africa after the end of World War I; has been associated with the Congress since 1935; imprisoned for the individual disobedience movement; became leader of the Delhi Congress Committee 1946; Chief Minister, Delhi State 1952-55; Minister of Delhi State, 1955-56.

Bose, Nandalal—born 3rd Dec. 1883; passed Entrance Examination and joined Calcutta Govt. School of Arts; came under the influence of Dr. Abanindranath Tagore while at Govt. Art School; served apprenticeship under the master for several years; joined Santiniketan School of Tagore in 1914; was Director of Kalabhavan, Santiniketan 1919-52; travelled Far East, China, Japan, with poet Tagore in 1944; decorated Congress pandals and exhibitions many times; was conferred doctorate by the Banaras Hindu University 1950 and title of *Desikottama* by Visvabharati 1952; also D.Litt. by Calcutta University 1957; is the most representative exponent of Indian Art.

Bose, Rajsekhar—born March 1880: educated at Darbhanga Raj School; took M.A. degree from Calcutta University, 1900; educated at Patna and Calcutta; began his career as Manager of the Bengal Chemical & Pharmaceutical Works; the most prominent litterateur of Bengal; wrote his first story in 1922; famous as a short story writer, as a editor of two epics, *Ramayana* & *Mahabharata*; author of the well-known Bengali dictionary, *Chalantika* · was the president of the Terminological Committee of the Calcutta University; Member of the Sahitya

Akademi; awarded Sarojini Gold medal and Jagattarini gold medal by Calcutta University, also Rabindra memorial prize by the Government of West Bengal, 1955; awarded *Padma Bhusan* by the Government of India 1956; received D.Litt. from Calcutta University, 1957 and Jadavpur University, 1958; Akademi Prize 1958.

Bose, Satyendranath, M.Sc., F.R.S.—b. Jan. 1, 1894; educated at Presidency College, Calcutta; graduated in 1918; M.Sc. degree 1915 topping the list; was lecturer in the Physics Department of Calcutta University; reader in Physics, Dacca University and later Head of the Department for several years; Khaira Professor of Physics, Calcutta University for several years; President, Indian Science Congress, 1914; Chairman, National Institute of Sciences, India 1948-50; originator of the subject of quantum statistics, the utility of which was recognised and extended by Einstein. A group of nuclear particles has been given the name 'Boson' in recognition of his contribution to the subject; also made significant contributions to Einstein's general theory of relativity, Vice-Chancellor, Visvabharati from 1956-58. Now National Professor of India.

Biswas, Charu Chandra, M.A., B.L.—born in 1888; enrolled advocate of the Calcutta High Court 1910-1937; Judge, Calcutta High Court; Member, Syndicate, Calcutta University 1916-21; nominated Councillor, Calcutta Corporation 1921-24 and 1920-27; Member, Central Assembly 1930-1936; Member, the Radcliffe Commission, 1947; was Minority and Law Minister, Government of India, 1952-57.

Cariappa, General K. M.—b. Jan. 28, 1900 in Mercara, Coorg; educated in the Central High School, Mercara and Presidency College, Madras; one among the first batch of Indian cadets to be commissioned from Daly College, Indore, 1919; was with 1/7th Rajputs in Waziristan 1922-25; first Indian officer to enter the Staff College, Quetta 1933; appointed Assistant Quartermaster-General, Deccan district 1938; served with the 10th Indian Division in Iraq, Syria and Iran 1941-1942; became Lt.-Col. in 1942 and commanded a machine gun battalion of the 7th Rajputs, thus becoming the first Indian to command a battalion; appointed Assistant Adjutant and Quartermaster-General, Army 1943; Member of the Army Re-organisation Committee 1944; visited England in 1946 as one of the first two Indian students at the Imperial Defence College; promoted in the rank of Major-General 1947; Chief of General Staff for a brief period 1947; appointed G.O.C.-in-Chief, Eastern Command 1947; became Lt.-General, 1947; appointed G.O.C. in-Chief D. E. P. Command, 1948; decorated with the Legion of Merit by U.S. Government, 1948; Commander-In-Chief, Indian Army 1949-54; Indian High Commissioner in Australia, 1954-56.

Chandrasekhar, Subrahmanyan, Dr., F.R.S.—born October, 19, 1910, graduated at Presidency College, Madras 1930; studied at Cambridge for several years; Fellow, Trinity College, Cambridge, 1933-1937; Lecturer at Harvard Observatory; is considered as one of the world's leading authorities in mathematical astrophysics; appointed Russel Lecturer, 1940, U.S.A., Received Bruce Medal—highest honour of the American Astronomical Society; appointed Associate Professor at Yerkes Observatory, Chicago University 1936 where he has remained ever since; awarded British Royal Astronomical Society's gold medal—the Society's premier award, 1953.

Chamanlal, Dewan—born 1892 and educated in London and Oxford; was assistant editor of *Bombay Chronicle*; Member, Central Legislative Assembly, 1923-41; member, Punjab Legislative Assembly, 1937 and 1946; Member, Central Assembly, 1946; Adviser to Workers' Delegate to the I. L. O. Conference at Geneva, 1925; Labour Delegate to I.L.O. Conference Bureau, 1932; one of the founders of I.T.U.C.; Member, Royal Commission on Labour 1929-31; President of the Federation of Posts & Telegraphs Union; leader of the Indian Food Delegation to Argentina; delegate to I.L.O. Conference at Montreal, 1946; Indian Ambassador to Turkey, 1947-49.

Chagla, Mohammed Ali Currim, B.A. (Oxon.)—born 30th September, 1900 educated at Bombay and Oxford; called to Bar (Inner Temple) 1922; Professor Government Law College, Bombay 1927-30; Secretary, Bar Council of the Bombay High Court 1933-1941; Vice-Chancellor, Bombay University 1947; Govt. of India delegate to U.N. 1946; Judge, Bombay High Court 1941-47; Chairman, Legal Education Committee 1948; was a member of the Law Commission; Chief Justice of Bombay High Court 1947-58; was Chairman of the Life Insurance Enquiry Committee in 1958; Indian Ambassador to U.S.A. from 1958.

Chakravarti, Phanibhushan—born Oct. 15, 1898, at Narayanganj, Dacca; first class M.A., in English; first class in B.L. Exam.; Lecturer in English, Jagannath College, Dacca; joined Calcutta Bar 1927; was connected with *Calcutta Weekly Notes* for 18 years; conducted Bhawal Sanyasi Case successfully; Legal Adviser, Government of India for income-tax matters 1940-45; Judge, Calcutta High Court; Member for Income-tax Investigation Commission 1949-51; Chief Justice, Calcutta High Court from 1952.

Chaudhuri, Naba Krushna—born 1901; educated at the Ravenshaw College, Cuttack; joined non-co-operation movement in 1921; joined Mahatma Gandhi's Sabarmati Ashram in 1923-24; established Congress Socialist Party in Orissa 1934, prominent leader in Orissa of States People's movement; was in prison during 1942 movement; was Secretary, Orissa P. C. C.; was Revenue Minister of Orissa Government in 1946; Chief Minister of Orissa 1952-56.

Chaudhuri Maj.-Gen. J. N., —O.B.E., b June 10, 1908; educated at Calcutta, London and Royal Military College, Sandhurst; received commission 1928; Commander, 16th Light Cavalry in Burma during World War II; attended Imperial Defence College, London, 1947; officiated as Chief of the General Staff; Military Governor, Hyderabad State upto 1949; Officer commanding, Ist Armoured Division, Indian Army, 1952; Adjutant-General 1952-53; Chief of the General Staff, Indian Army 1955-56.

Chatterjee, N. C.—born Oct. 19, 1895; educated in Calcutta and London where he took LL.B. degree and joined Calcutta Bar; joined Hindu Mahasabha movement in 1937; withdrew from politics for four years; Councillor, Calcutta Corporation 1940-44; Judge of the Calcutta High Court 1948-1950; joined Hindu Mahasabha movement again and became its President: Member of the Parliament. 1951-55; senior Advocate, Supreme Court of India.

Chatterjee, Suniti Kumar, M.A., D.Litt. (Lond.)—born Nov. 26, 1890; educated at Presidency College, Calcutta and School of Oriental Studies, London; Khaira Prof. of Indian linguistics and phonitics, Calcutta University 1922-52; travelled with Tagore in the Far East, 1927; represented Calcutta University in different international conferences 1935, 1938, 1948, 1949, 1950: President, Bengal Legislative Council from 1952; Member of the Language Commission; Chairman, Sanskrit Commission 1956; author of several books on linguistics.

Chattopadhaya, Harindranath—born 1898 at Hyderabad; brother of Sarojini Naidu; educated at Hyderabad, Deccan and also at Cambridge for a year; well-known as a poet, and playwright; has travelled extensively throughout Europe and America, has acquired specialised knowledge on theatre and stage-craft; is a disciple of Sri Aurobindo; visited Russia as representative of Indian artists and authors, 1951; Member of the Parliament 1951-56; author of following books—*Feast of Youth; Perfume of Earth, Gray Clouds, etc.*

Chavan Yeshwantrao, B.—born March 12, 1914 in Satara district; participated in the Civil Disobedience Movement of 1932; graduated in 1938 and took LL.B. degree in 1941; joined the 'Quit India' movement and led underground movement from 1942-1943 when arrested; Member of the Maharashtra P. C. C. since 1940; Member of the Bombay Legislative Assembly from 1946; Minister of Civil Supplies 1952-57; Chief Minister of Bombay from 1957.

Chopra, Lt. Col. Sir R. N., C.I.E., M.D., F.R.C.P. (Lond.)—b. Aug. 17, 1882; educated at Punjab, and Cambridge Universities and then London; joined I.M.S. in 1908; Director, School of Tropical Medicine, Cal. 1935-41; has attained international fame by his researches in tropical diseases: President, Indian Drugs Enquiry Committee 1930-31; Director, Medical Services, Kashmir State; started Bio-Assay Laboratory in Calcutta for laying down standards in medicines; Honorary Physician to the King of Great Britain, 1935-39; President, Indian Science Congress, 1947; Chairman Indigenous Systems of Medicine Committee; is now Director of Drug Research Laboratory, Kashmir.

Dange, S. A.—born October 10, 1899; Member, Central Committee and Politburo of the Communist Party of India; Vice-President, World Federation of Trades Unions; imprisoned numerous times for his activity in conducting strikes; Member of the Parliament.

Das Sudhi Ranjan—born Oct. 1894: educated at Santiniketan, Bangabasi College, Calcutta & University College, London, from where he took LL.B. degree in 1918; called to the Bar at Grey's Inn and joined Calcutta Bar 1919; sometime lecturer, University Law College, Calcutta; Additional Judge, Calcutta High Court 19 2; Puisne Judge of that Court 1934; Chief Justice, East Punjab, High Court 19-9; Judge, Federal Court, 1950; Chief Justice, Supreme Court of India from 1956.

Das Gupta, Satish C.—born 188 began his career as Superintendent of Bengal Chemical & Pharmaceutical Works, Calcutta; left the service and joined non-co-operation movement; started *Khadi Pratisthan* for the development of cottage industries and khadi work and achieved signal success; has devoted entirely to the constructive side of Congress programme; imprisoned several times; Member, Depressed Classes Commission.

Daulatram, Jairamdas—born 1892 at Hyderabad, Sind; graduated in law 1915; joined non-co-operation movement, 1919; member, A.I.C.C. for several years; Editor, *Hindu* (Karachi), 1921; General Secy., Hindu Mahasabha, 1925-27; Editor, *Hindusthan Times*, Delhi, 1925-26; Member, Bombay Legislative Council, 1926-29; General Secretary of the Congress 1931-34; Member, Congress Working Committee 1928-41; imprisoned four times during political movement 1930-34; Member, Indian Constituent Assembly; Governor of Bihar, 1947 Minister of Food and Agriculture, Government of India; was Governor of Assam.

Dhebar, U. N.—born Sept. 21, 1905 in Jamnagar State; matriculated at the age of 17; started practice as lawyer at Rajkot, 1929; left practice for good in 1936; joined political movement; courted arrest several times; became Chief Minister of Saurashtra State 1948-54; President of the Congress since 1954-1958.

Devi, Kamala—born 1903, Mangalore; educated in Madras and London School of Economics; General Secretary of the All-India Women's Conference, 192-3; President, All-India Women's Conference, 1944-45; married Harindranath Chattopadhyaya, the poet and brother of Mrs. Sarojini Naidu; a gifted speaker; entered Congress, 1922; imprisoned four times for taking part in Congress activities; first woman to contest Legislative Council election in India 1926; went on world tour, 1930-41; Member, Congress Working Committee, 1946-47.

Desai Khandubhai Kasanji—born at Bulsar, Gujerat in Oct. 23, 1898; educated at Bai Anabai High School, Bulsar and Wilson College, Bombay; was General Secretary, Textile Labour Association, Ahmedabad and a member, Hindusthan Mazdoor Sevak Sangh and of the Ahmedabad Municipality for over 20 years; was also a member of Bombay Legislative Assembly 1937-39 and 1946-50; Director, Industrial Finance Corporation; was President, Gujerat P. C. C.; Member, Congress Working Committee; has served on various important bodies including Fiscal Commission, Employees' State Insurance Corporation, etc.; Minister of Labour, Government of India 1954-1955.

Desai Morarji R.—born 29, Feb. 1886; educated at Wilson College, Bombay; joined Bombay Provincial Service in 1918 but resigned in 1930; suffered imprisonment in 1930, 1932 and 1942; was kept in detention during 'Quit India' movement, 1942-45; Member, A.I.C.C. Minister for Revenue, Bombay Government 1937-39; Home Minister, Bombay Government 1946-52; Chief Minister, Bombay 1952-56; Minister of Commerce and Industry, Government of India 1956-57. Finance Minister, Government of India from 1958.

Deshmukh, Chintaman D., C.I.E.—born Jan. 14, 1896; educated at Bombay and Cambridge and entered I.C.S. in 1919 and received his early administrative training in Madhya Pradesh: one of the Secretaries of Second R. T. Conference, 1931; Revenue and Finance Secretary of Madhya Pradesh for 6 years; Jt. Secretary, Govt. of India Education, Health and Lands 1939; Secy., Reserve Bank of India 1939-41; Dy. Governor, Reserve Bank of India, 1941-43; Governor, Reserve Bank of India 1943-49; Governor for India of International Monetary Fund and International Bank of Reconstruction 1946-49; Chairman, International Monetary Fund and International Bank 1950; Finance Minister, Govt. of India 1950-55; Member, Indian Planning Commission 1950; Chairman, University Grants Commission from 1956.

Diwakar, R. R.—born Sept. 20, 1895; educated in Belgaum and Hubli; graduated from Fergusson College, Poona, 1916; graduated in law, 1921; joined non-co-operation movement in 1921 and sentenced for two years; Editor, *Nava Sakti* in 1923; Secretary, Karnatak Provincial Congress Committee, 1930-34; Editor, *Samyukta Karnatak*; imprisoned several times from 1921 to 1945; member, Constituent Assembly, 1946; delegate, 37th Session of the Inter-Parliamenatry Union Conference, Rome, 1948; Minister, Information and Broadcasting, Government of India. 1948-1952; Governor of Bihar, 1952-1956.

Dey Hirendralal, M.A. (Cal.), D.S.C. (Edin.)—born November, 1896; educated at Presidency College, Calcutta and School of Economics, London, Lecturer, Lucknow University 1921-33; Head of the Depart of Economics, Dacca University, 1933-45; now President, Indian Tariff Commissoin.

Dey, Surendrakumar—born in Sylhet 1907; educated at Sibpur Engineering College and took Master's degree in electrical engineering from Michigan University, U.S.A.; worked in the General Electric Co.; left service in 1947 to devote in the rehabilitation of displaced persons; showed wonderful rehabilitation work at Kurukshetra and established the township of Nilokheri; became Administrator of the Community Projects Administration 1952-57; Union Minister of Community Development from 1957.

Duleepsinhji, Prince K. S.—born 1905; educated at Cheltenham College and Clare College, Cambridge, was Cambridge cricket and racquet blue captained Sussex County Cricket Team 1931-32; played in Test Matches for England against Australia, South Africa and New Zealand; travelled extensively in Europe, U.S.A. and Australia; served in various administrative capacities in Nawanagar State; High Commissioner for India in Australia 1950-53.

Dutt, R. Palme—born 1896; educated Balliol College, Oxford; Secy., International Research Dept. 1919-22; Executive Member of the same, 1921-26; Editor, "*Workers' Weekly*", 1921-26; Editor, "*Labour Monthly*," since 1921; one of the greatest living authorities on Marxism; Author of "*Labour International Handbook*," "*Modern India*," "*World Politics*." 1918-36; Vice-Chairman, Communist Party, England; visited India in 1946.

Gadgil, N. V., B.A., LL.B.—born 10th Jan. 1896 at Malargarh, Central India; educated at Poona and Baroda; graduated in 1918 with honours in Economics and Politics; was member and Vice-President of the Poona Municipality; Secretary, Poona D.C.C. and Bombay P.C.C.; President, Bombay P.C.C. for seven years; was A.I.C.C. Whip and General Secretary, Congress Party, Central Assembly till 1947; served imprisonment for eight years for Congress work; Minister of Works, Mines and Power, Government of India, 1947-52; now Governor of Punjab from 1958.

Dutt, B. K.—born Comilla, 1st March, 1910; granted in commerce from Calcutta University 1930; joined Comilla Banking Corporation; organised New Standard Bank Ltd.; became Managing Director of the Comilla Banking Corporation Ltd.; with the amalgamation of four leading Bengali banks into United Bank of India in 1950, he became director and General Manager of the Bank; became its Managing Director 1956; was member of the Shroff Committee; Member of the Working Committee of the Bengal National Chamber of Commerce; visited Europe, U.S.A. and Japan for developing banking business.

Dutta, Dr. Bhupendra N.—born in Calcutta, Sept., 4, 1880; joined secret revolutionary freedom movement in 1902; convicted for sedition as editor of *Jugantar;* joined New York University, 1909 and got degrees from Brown University 1913 and Chicago University 1914; visited European countries at the call of Indian Revolutionary Committee of Berlin during World War I; joined Berlin University 1919; visited Moscow in 1921 at the invitation of Comintern; admitted into Doctorate of Hamburg University 1923; Member of the Anthropological Societies of several European Countries; joined Indian National Congress 1925; participated in Civil Disobedience movement and suffered several terms of imprisonment; President and Vice President of several Kisan Sabhas and All India Trade Union Congress; pioneer in interpreting history of India from historical dialectic materialistic standpoint; author of the monumental work on the origin and development of Indian social polity and culture; has made notable contribution to researches on Indian history from sociological and anthropological standpoint.

Gandhi, Indira—born 1917; daughter of Jawharlal Nehru; first educated at Switzerland; later at Santineketan; then went to Somerville College, Oxford; has travelled widely in Asia, Europe, America and Russia; acted as Secretary to her father; married Feroz Gandhi; has two sons; at 21 became the member of the Congress; went to prison for 13 months; member, Congress Working Committee; Chairwoman, Women's Department of the Congress; Member, Central Election Board and of Youth Advisory Board of the A.I.C.C.; President of the Congress, 1959.

Gandhy, Sir Jehangir Jivaji—born Nov. 18, 1896; educated at Bombay University, Columbia University, U.S.A. and Carnegie Technical Institute U.S.A.; joined Tata Iron and Steel Co. 1921; Assistant General Superintendent 1925; General Superintendent 1930; General Manager 1938; Agent, Tata Sons 1944; Director, TELCO 1945; now Director, Tata Industries since 1954.

Ghose, Dr. Profulla Chandra—Comes from Malikanda, Dacca; passed B.A. with 1st class honours in Chemistry, 1913; M.A., in 1916; first Indian to be appointed Deputy Assay Master, Calcutta Mint, 1920; gave up the service to join non-co-operation movement, 1921; had been in jails number of times in 1920, 1930, 1932, 1933 and 1934; member, Congress Working Committee 1939-50; again imprisoned in 1940 and 1942; was one of the founders of Abhoy Ashram; Chief Minister, W. Bengal, 1947-48; left Congress and founded Krishak Mazdur Party.

Giri V. V.—educated at Berhampore (Ganjam) and Dublin; practised law for some time; joined C.D. movement in 1921; President, All-India Railwaymen's Federation 1927 and its Joint Secy., 1929-36; represented All-India Trade Union Congress at I.L.O. in Geneva, 1927; represented labour in R. T. C. 1930-31; member, Madras Legislative Assembly, 1937; Minister of Labour and Industries, Madras 1937; again Minister, of Madras in 1946 which he resigned; twice President, All India Trade Union Conference; India's High Commissioner to Ceylon 1947-50; Labour Minister, Central Government, 1952-1954, Governor of U.P. from 1958.

Gopalan, Avilliath, Kutteri—born 1904 in Malabar; passed Matric exam. from Mission High School, Tellicherry, 1921; worked as clerk in Malabar District Board for 8 years; joined Gandhi movement in 1927 and sent to jail in 1930; joined Congress Socialist Party 1935; Member, A.I.C.C. 1936-39; was President and Secretary, Indian Kisan Sabha, 1951; headed a hunger march from Calicut to Madras (700 miles) in 1938; joined Communist Party in 1939; sent to jail in 1941 but disappeared from Vellore Central Jail; emerged from his hideouts in 1946 but again sent to jail till May, 1951; Secretary, Kerala Communist Party since 1946; Member, Central Committee, Communist Party of India; Member, Lok Sabha and Leader of the Party in the House from 1952.

Govind Das, Seth—born 1896; joined non-cooperation movement in 1920; suffered imprisonment for 7 years; President, Mahakoshal P.C.C. 1938-44 and 1946 onwards; Member, Central Assembly 1923-25 and 1934-47; Member, Council of States 1925-29, visited South and East Africa in 1937 in connection with the status of Indians; President, Hindi Sahitya Sammelan 1948; leader, Indian Delegation to Commonwealth Parliamentary Conference, New Zealand, 1950; has written 84 plays in Hindi; member of the Parliament.

Hanumanthaiya K., B.A., LL.B. —born in 1908; educated at

Mysore and Poona; was President of the Bangalore Municipal Council 1942; Leader Congress Party in the Mysore Representative Assembly 1945-49; President, Bangalore District Congress Committee; Indian Representative at the Inter-Parliamentary Union Conference, Stockholm 1949 and Dublin 1950; Chief Minister of Mysore 1952-56.

Hussain, Dr. Zakir—born 1899; educated at Aligarh University; gave concrete shape to Mahatma Gandhi's Wardha Scheme of Education; built up *Jamia Milia* into one of the most significant educational institutions of the country; Chairman, Central Board of Secondary Education; Vice-Chancellor, Aligarh Muslim University for several years; member Indian Press Commission; now Governor of Bihar from 1957.

Jay Prakash Narain—born in the Saran district of Bihar; left for America in 1922, and stayed there for nearly 8 years and studied at five different Universities; returned to India in 1929, and was placed in charge of Labour Research Department of the Congress; General Secy. Congress 1930-32; imprisoned for C. D. Movement; formed Congress Socialist Party in 1934; imprisoned in 1939 under D. I. Act and released in 1946; member, Congress Working Committee, 1946-47; a prominent member of the Praja Socialist Party; has joined Bhoodan Movement.

Jayakar, M. Ramrao, Dr. Bar-at-Law, LL.D., D.C.L., P.C.—educated at Bombay University; entered Bombay Legislative Council, 1923 and became leader of the Swaraj Party in the Central Assembly; took a prominent part to bring peace between the Congress and the Government 1930 but [illegible] Member, Central Legislative Assembly 1926-30; a Member, R.T.C. and Joint Select Committee, 1933; Judge, Federal Court of India, 1937; received LL.D., from Oxford, 1938; member of Judicial Committee of the Privy Council; Member, Constituent Assembly of India; was Vice-Chancellor, Poona University.

Jain, Ajit Prasad, M.A., LL.B.—born Oct. 2, 1902; educated at Lucknow University; Member, U.P. Legislative Assembly 1937-38; Member, A.I.C.C. 1931-35 and 1946; Member, Constituent Assembly, 1946-50; Member, U. P. Legislative Assembly 1937-38; Member, Indian Parliament since 1948; suffered imprisonment for participating in Congress movements 1921, 1930-32, 1940 and 1942; has travelled extensively in Europe; Minister of Rehabilitation 1950-54; Minister of Food and Agriculture Government of India, since 1954.

Jagjivan Ram, B.Sc.—born April 1908: educated at Banaras and Calcutta Universities; Secretary, Bihar Harijan Sevak Sangh 1934; General Secretary, All-India Depressed Classes League till 1936 and its President 1936-46; suffered imprisonment for participating in Congress movement 1940-43; Parliamentary Secretary of the Congress Ministry 1937-39; Minister of the Congress Government in Bihar 1946; Labour Member, Interim Central Government 1947; Leader, Indian Delegation to I.L.O. Conference 1947; Minister of Labour, Government of India, 1946-52; Minister of Communications, Central Government 1952-56; Minister of Railways, Government of India from 1957.

Joshi, P. C., M.A., LL.B.—born 1907 ; joined communist movement when in college ; convicted in Meerut Conspiracy case for 5 years ; Secretary of the Communist Party 1937-38 ; edited the party weekly *National Front* 1937-59; tsarted party's new organ *People's War* (1942-45).

Kamath, Hari Vishnu, B.Sc.—born July 13, 1907 ; educated at Madras University, School of Economics, London and University College, London ; resigned Government Service as I.C.S.; Secretary, National Planning Committee ; joined Forward Bloc ; served several terms of imprisonment 1940-56 ; Member, Constituent Assembly and Indian Parliament, 1946-52 and again 1954-56.

Kabir, Humayun, M.A. (Cal. & Oxford); born Feb., 22 1956; educated at Calcutta and Oxford ; was Secretary of the Oxford Union Society ; was the first President of the All-India Students' Congress and was the leader of the Krishak Praja Party in the Bengal Legislative Council 1941-47; was also President of various organisations including All-Bengal Peasants' Party, Bengal-Assam Railway Employees' Association, etc.; was Professor of Calcutta and Andhra Universities ; Assessor to the adjudicator in All-India Railway dispute, 1946 ; Member, Indian Railway Enquiry Committee, 1947; Dy. Leader, Indian Delegation at the 3rd General Conference of U.N.E.S.C.O., 1947; a well-known writer in Bengali and English ; Secretary, Ministry of Education, Government of India 1948-56; Minister of State for Transport and Communications, Government of India 1957; Minister, Scientific Research and Culture Affairs, Government of India from 1958.

Kalelkar, Kaka Saheb—born Dec. 1, 1885, eminent social worker, educationist and writer ; was the closest associate of Mahatma Gandhi since 1915; was Vice-Chancellor and Principal of Gujarat Vidyapith, 1928-34 ; was editor of *Navajivan*, 1922-23; is now the President of the Basic Education Society, also Director, Mahatma Gandhi's Memorial Museum ; Chairman, Backward Classes Commission.

Kairon, S. Pratap Singh—born 1901 at Amritsar ; educated at Khalsa College Amritsar and graduated from Michigan University, U.S.A.; joined Congress in 1929 ; courted imprisonment for Congress cause; elected M.L.A., Punjab 1936; re-elected 1946; Minister of Punjab 1947-49; General Secretary, Punjab P.C.C. 1941-50; Chief Minister, Punjab since 1956.

Karan Singh, Yuvaraj—son of the Hari Singh, the ex-Maharaja of Jammu & Kashmir; became the constitutional head of Kashmir in 1949; was elected Sadar-i-Riayasat by the State's Constituent Assembly in 1952; educated at Srinagar, then at Doon School from where he passed Senior Cambridge examination; took his Intermediate from Allahabad University and his B.A. from J. & K. University; took Master's degree in Political Science from Delhi University; Chancellor of the J. & K. University.

Katju, Dr. Kailash Nath, M.A., LL.D.—born 17th June, 1887: joined Allahabad High Court 1914: obtained LL.D. of Allahabad University, 1919 ; Chairman, Allahabad Municipal Board, 1935-36 ; Minister under Congress Government 1937-39 and April, 1946—August, 1947; member, A.I.C.C.; August, 1947; member A.I.C.C.; imprisoned for 18 months in connection with C.D. movement; detained under Defence of India Rules 1942-43; Governor, Orissa, 1947-48; Governor, West Bengal 1947-51; Home and Defence Minister, Government of India 1951-56; Chief Minister, Madhya Pradesh from 1957.

Kaur, Rajkumari Amrit—born February 2, 1889; daughter of Raja Harnam Singh of Kapurtala; educated at home and in school and college in England; served on Gandhi's secretariat staff for 16 years; member, All-India Spinners' Association and Hindustan Talimi Sangh for several years; took part in freedom movement and imprisoned for 2½ years; one of the founders of the W.I.W.C. and A.I.W.E.F.A.; President of A.I.C.C. 1931-33 and 1938; held various offices in all-India organisations for women 1930; member, Central Advisory Board of Education for many years; Member, Indian delegation to UNESCO in 1945 and 1946; led the Indian Delegation to W. H. Conference; elected President of the W.H.O. Assembly 1950; President, Indian Leprosy Association and T.B. Association of India; Trustee, Gandhi Memorial Fund; President, National Sports Club of India; Minister of Health, Government of India 1947-1957; a keen lover of sports and a famous tennis player.

Karve, Dr. Dhonoo Keshav—born in April 18, 1858; started his career as professor of mathematics in a Poona College; established the Widow Re-marriage Association 1893 and Hindu Widow's Home Association 1895; started another movement of village education 1936; received one lakh of rupees from the public in recognition of his educational and social services 1949 at the age of 91; was awarded *Padma Bhusan* 1955, awarded *Bharat Ratna* 1958; founded Hindu Women's University which was converted into S.N.D.T. Women's University in 1916.

Keskar, Dr. Balkrishna Viswanath—D.Litt. (Paris)—born 1903 at Poona; educated at Kashi Vidyapith and Sorbone, Paris; joined non-cooperation movement in 1931; was lecturer of Kashi Vidyapith 1927-1930; Secretary, Foreign Dept. of the A.I.C.C., 1939-40; was sentenced to imprisonment in 1930, 1931 and 1943; detained during individual civil disobedience movement 1941-42; joined the August revolution in 1942 as underground worker; General Secretary, Congress 1946-47; Member, Constituent Assembly 1948; was a delegate of the Inter-Parliamentary Union, Rome 1948; Deputy Minister, External Affairs 1939-52; member, Indian Delegation to U. N. General Assembly 1950; Deputy Minister, Railways and Transport in addition to External Affairs, March 1952—May, 1952; Minister, Information & Broadcasting, since 1952.

Krishnamurti, J.—born 1897, in Madras; was adopted by Annie Besant in 1909 who proclaimed his spiritual powers; "Order of the Star in the East" was formed, headed by Krishnamurti, to prepare for a new Messiah; he disbanded the Order in 1929 and repudiated the idea.

Kunzru, Pandit Hridaynath, LL.D.—born 1887; educated at

Allahabad University and London School of Economics; joined Servants of India Society 1909; member, U. P. Legislative Council, 1921-23; and Central Assembly 1927-30; President, National Liberal Federation 1934; member of the Council of States 1937-47; President Servants of India Society, 1936; member, Constituent Assembly of India; Chairman, National Cadet Corps Committee, 1946-47; Delegate, Pacific Relations Conference, 1945; Member, Council of States from 1951; was member, State Reorganisation Committee.

Kripalani, Acharya J. B. M.A. —born at Hyderabad (Sind) 1888; educated at Wilson College, Bombay, Ferguson College, Poona; Professor of History, G.B.B. College, Muzaffarpur, Bihar (1912-17); gave up the post to join Mahatma Gandhi's Champaran indigo Satyagraha 1917; Lecturer, Banaras Hindu University 1918-20; joined non-cooperation movement 1920; imprisoned several times; started Gandhi Ashram for Khadi & village work 1920; Principal, Gujarat Vidyapith 1922-27; member, Congress Working Committee and General Secretary of the Congress 1947; member, Hindustani Talimi Sangh, Wardha; left Congress in 1951 and organised the Krishak Mazdoor Praja Party which later merged with Socialists and is now known as Praja Socialist Party.

Kripalani, Mrs. Sucheta, M.A. —born, June 1908; educated at Delhi & Punjab Universities; Prof. Hindu University; Secy., Women's Section, Indian National Congress and its foreign department for one and a half years; imprisoned 1940 & 1944; member, Working Committee of the Congress, 1947 and Member, U.P. Legislative Assembly; member, Board of Trustees, Gandhi Memorial Trust; member, Indian Delegation, General Assembly U. N. O., member, Lok Sabha.

Krishnan, Dr. M. S.—Born in Madras; graduated with honours from the Presidency College, Madras; joined Royal College of Science, London in 1921, where he received D.Sc. and A.R.C.S. and also Ph.D. of London University in 1924; joined Geological Survey of India as an assistant superintendent 1924; lecturer in geology in the Forest College, Dehra Dun for three successive seasons, 1927-29; professor of Geology, Presidency College, Calcutta 1933-35; Assistant Director of Geological Survey of India 1938-39; Superintending Geologist 1945; Director, Geological Survey of India from 1959. Delegate to the Royal Society Empire Scientific Conference 1946; Representative of India at the U.N. Scientific Conference 1948; Fellow of all learned scientific societies, such as, National Institute of Sciences, Indian Academy of Science; Mineralogical Societies of England, France, Switzerland, Germany, America.

Krishnan, Dr. K. S., D.Sc.; F.R.S.—born Dec. 4, 1898; educated at Madras; Research Associate, Indian Association for Cultivation of Science, 1923-28; Prof. Allahabad University, 1942-47; President, National Academy of Sciences, India, 1945-46; President, Indian Science Congress, 1939; fellow of several scientific societies and academies; recipient of numerous medals; delegate to several international scientific conferences; collaborated with Sir C. V. Raman in the discovery of Raman effect; now Director, National Physical Laboratory, New Delhi, since 1947.

Krishnamachari, T. T.—born Nov. 26, 1903 ; educated at Madras Christian College ; entered Madras Legislative Assembly 1937 ; member, Central Assembly, 1947 ; member-Constituent Assembly ; member, Indian Financial Delegation to London 1948 ; member, House of the People and Minister, Commerce and Industry, Government of India 1952-56 : Finance Minister, Government of India 1956-57.

Lal, Shamaldhari—born Oct. 4, 1894 ; educated at Calcutta University and Exeter College, Oxford ; entered I.C.S., in 1919 : Divisional Magistrate and Collector, Bihar and Orissa 1920 ; Under-Secretary to the Government of India, Industries and Labour Department 1924-1927 ; Jt.-Secretary to Royal Commission on Labour 1929 ; Director, Industries and Labour and Secretary to the Government of Bihar and Orissa ; Deputy High Commissioner for India in London 1938-1955 ; Joint Secretary, Government of India Labour Department and Ministry of Labour ; Leader, Indian Delegation to I.L.O. at Montreal 1946 ; Government delegate for I.L.O. in 1947 and 1948 ; Chairman of the Governing Body of the I.L.O. 1948-49 : Secretary, Ministry of Labour, 1946-10.

Lal Bahadur Sastri—born 1904 in Banaras ; joined C. D. movement and imprisoned in 1921 and General Secretary, U.P.C.C. 1935 ; member, U.P. Legislative Assembly 1937 and 1946 ; was General Secretary of the Congress ; Minister of Railways, Government of India 1952-57 ; Minister of Transport & Communications from 1957.

Lohia, Dr. Rammonohar—born 1910 ; educated at Calcutta, Bombay and Berlin where he took Ph.D. degree; prominent member of the Proja Socialist Party ; was Secretary, Foreign Department of the Congress ; imprisoned two years for anti-war propaganda ; took leading part in 'quit India' movement, 1942.

Masani, M. R., B.A., LL.B.—b. Nov. 20, 1905 ; educated at Elphinstone College, Bombay and London School of Economics, London ; advocate of Bombay High Court ; a founder of the Congress Socialist Party ; member, Bombay Corporation, 1935-45 ; Mayor of Bombay 1943-44 ; Secretary, Public Relations Department of Tata Sons Ltd., 1948-49 ; member, the Central Assembly, 1945-47 ; Indian Ambassador to Brazil, 1948-49 ; member, Indian Constituent Assembly ; Author of many books, such as *India's Constitution at Work, Our India, Your Food, Picture of a Plan.*

Malik, Hardit Singh—born Nov. 23, 1894 ; educated at Oxford ; entered I.C.S. in 1922 ; served in the Punjab 1922-30 ; Jt. Secy., Commerce Dept., Govt. of India 1934-37 ; first Indian Trade Commissioner to U.S.A. and Canada 1944-47 ; represented India at several International Conferences ; leader, Indian delegation, 6th Session of the U. N. General Assembly at Paris 1951-52 ; High Commissioner for India in Canada 1937-49 ; Indian Ambassador to France 1948-56.

Mahajan, Mehrchand—born Dec. 1889 ; educated at D.A.V. College, Lahore & Punjab University ; practised as a lawyer at Dharamshala, Gurdaspur and Lahore for 30 years ; appointed Judge of Lahore

High Court in 1943; served for a short period as a Judge of East Punjab High Court after partition; appointed Chief Minister, Jammu & Kashmir State; Constitutional Adviser, Maharaja of Bikaner; Judge, Supreme Court of India; also Chief Justice, 1954-56.

Mahtab, Harekrushna—born Nov. 21, 1899; educated at Ravenshaw College, Cuttack; joined non-cooperation movement in 1920; Chairman, Balasore District Board 1924-28; member B. & O. Legislative Council 1924; Editor, *Prajatantra* and *Rachana*; joined C. D. movement, 1930-1932; President Utkal P.C.C. 1930 & 1937; member, Congress Working Committee, 1946-50; Ex-Minister, Commerce and Industry, Government of India; Governor of Bombay 1955-56; now Chief Minister, Orissa.

Mathai, Dr. John, D.Sc., (Lond.)—born Jan. 10, 1886; educated at Madras, London School of Economics and Oxford; D.Sc. (Lond.); Officer on Special Duty, Co-operative Department, Madras 1918-20; Prof. of Economics, Presidency College, Madras 1922-25; Member, Madras Legislative Council, 1922-25: Member, Indian Tariff Board 1925-31; President, Tariff Board 1931-35; Director-General, Commercial Intelligence and Statistics 1935-40; joined the Tatas 1940 and became Director 1944; Finance Minister, Government of India 1946; Minister, Industry and Supply, Govt. of India 1946-47; Minister of Transport and Railways 1947-48; Minister of Finance 1948-50; joined the Tatas in 1950; Chairman, Taxation Enquiry Committee; Chairman, Board of Directors, State, Bank of India 1955-56; Vice-Chancellor, Kerala University, awarded *Padma Bibhusan* in 1954.

Mahmud, Dr. Syed—born in 1889; educated in Aligarh, Cambridge and Germany; was General Secretary of the Khilafat Committee and of the All-India Congress Committee 1923; was member of the Working Committee of the Congress 1945-49; Minister of Education and Development in the first Congress Bihar Cabinet 1937-39; again Minister, Development and Transport 1946-52; was jailed several times, last being in connection with the 1942 movement; member of the Lok Sabha; Minister of State, Central Cabinet 1954-56.

Mehta, Dr. Jivraj, M.D. (Lond.) M.R.C.P. (Lond.)—born 1887; educated at Baroda, Bombay & London; Chief Medical Officer, Baroda 1921-24; President, Indian Medical Association for several years; Member, Medical Council of India 1938-43; Fellow, University of Bombay; arrested and imprisoned in 1932-33 and 1942-44 under D. I. Act; Director-General of Health Services of India, 1948; Dewan, Baroda State, 1948; Minister, Government of Bombay from 1949.

Mira Behn—born Nov. 22, 1892; daughter of Admiral Sir Edmund Slade: Her interest in music and admiration for Bethoven's works led her to Romain Rolland which in turn led her to Mahatma Gandhi; left Europe for India and joined Mahatma Gandhi's Ashram at Sabarmati, Nov. 1925
Mahatma Gandhi to London in 1931 for Round Table Conference; suffered several terms of imprisonment during India's struggle for freedom; established an ashram and

cattle development centre in Rishikesh forest area in 1947.

Mehta, Mrs. Hansa—born in 1897; educated at Baroda; married to Dr. Jivaraj Mehta; President B.P.C.C., 1930; fellow, Bombay University Senate 1931-1947; member, Bombay Legislative Council for several years; Vice-President, All-India Women's Conference for several years; represented India in several International Conferences; was a member of the U.N. Sub-Commission on the status of women 1946; member, Human Rights Commission of U. N. 1947; and delegate, Commonwealth Parliamentary Conference 1948; author of numerous books; was Vice-Chancellor, Baroda University.

Mehta, Ganganvihari Lal, M.A.—born April 15, 1900; educated at Bombay and London School of Economics; Assistant Editor of the *Bombay Chronicle* 1923-25; Manager, Scindia Steam Navigation Co. at Calcutta 1928-47: President, Indian Chamber of Commerce, 1939-40; President, Federation of Indian Chambers of Commerce, 1942-43; Member, Central Advisory Board of Education 1943-47; Member, Constituent Assembly of India, 1947; Commissioner of the Port of Calcutta for several years; President, Tariff Board 1947-50; member, All-India Council of Technical Education, 1945; Chairman, Indian Tariff Commission 1952; member, Planning Commission 1950-52; Indian Ambassador to U.S.A. 1952-58; awarded *Padma Bibhusan* in 1949.

Mehta, Asoka, B.A.—born 24th Oct. 1941; educated at Wilson College, Bombay; imprisoned several times; one of the founders and prominent member of former Socialist Party of India; Secretary, All-India Socialist Party; editor of the party organ 1935-39; imprisoned several times; Member of the Lok Sabha; was Chairman, Food Grains Enquiry Committee.

Medhi Bishnuram—born April 1890; educated at Gauhati and graduated from Presidency College, Calcutta; took M.A. degree from Dacca College; joined Bar at Gauhati; participated in the non-co-operation movement in 1920 and was imprisoned for one year; enrolled as Advocate of the Calcutta High Court; was President of the Assam Provincial Congress Committee till 1939; Member of the Assam Legislative Assembly in 1938; was Minister of Finance and Revenue of the Assam Government 1946; Chief Minister of Assam 1950-52; Chief Minister of Assam for the second time 1956 which he resigned in 1957; Member, Assam Legislative Assembly 1938 & 1946; Joint Secretary, Congress Session, Gauhati, 1930; President, Assam P.C.C. 1930-39; First Congress Chairman, Gauhati Local Board; Assam's Chief Minister 1950-57; now Governor of Madras from 1958.

Mahalanobis, P. C., M.A., F.R.S—b. June 29, 1893; educated at Brahmo Boys School & Presidency College, Calcutta; received Tripos, Cambridge University; Senior Research Scholar at King's College, Cambridge; joined Presidency College, Calcutta 1917; M.A. of Cambridge University 1918; Hony. Secretary, Biswavarati, 1921-31; Sectional President, Indian Science Congress, 1925, 1942; Secretary, Indian Statistical Society from 1931; Editor, *Sankhya* for several years;

Statistical Adviser to many Government Committees and Commissions; Cal. University Professor of Statistics, 1941; General Secretary, Indian Science Congress 1945; elected F.R.S. 1945; President, Indian Science Congress, 1950, Leader, Indian Delegation, U.S.S.R. Academy of Sciences Moscow, 1951 Scientific Delegation, U.S.S.R. Academy of Sciences 1954; Chairman, E.C.A.F.E. Conference of Statisticians, Bangkok, 1952; Statistical Adviser to Indian Cabinet.

Munshi, Sm. Lilavati—born 1889, a leading Congress woman, a keen social worker; was an elected member both of Bombay Assembly and Bombay Corporation; an authoress of repute with a record of national, social and benevolent services; wife of Mr. K. M. Munshi.

Mittra, Dr. Sisir Kumar, F.R.S.—is a professor of Physics and Director of the Institute of Radio-Physics and Electronics; is a pioneer in the field of radio research in the country; is well-known for his research in ionisphere—the radio roof of the world. His book on this subject *Upper Atmosphere* has been translated into Russian by the Ministry of Culture, U.S.S.R.; elected Fellow of the Royal Society in 1958.

Menon, K. P. S., B.A. (Oxon.); I.C.S., C.I.E.—born Oct. 18, 1898; educated at St. Xavier's College, Madras and Oxford; joined I.C.S. in 1932; served in Madras Presidency till Feb. 1925; Govt. of India's Agent in Ceylon 1929-33; deputed by Govt. of India to enquire the position of Indians in Zanzibar, Kenya and Uganda 1934; Chief Minister, Bharatpur State and Political Agent, Western Rajputana States, 1940-43; Agent-General, Govt. of India in China 1943-47; Chairman, U. N. Commission on Korea, 1948; Secretary-General, External Affairs, Government of India 1948-52; Indian Ambassador to U.S.S.R. from 1952.

Mukherjee, Air Marshal Subroto—born March 5, 1911 at Calcutta; educated at Cranwell, England in 1929; passed through the R.A.F. College and Imperial Defence College, U. K.; served with No. 16 Squadron R.A.F. 1932-33; commanded No. 1 Squadron I.A.F. 1939; mentioned in despatches for distinguished service in N.W.F.P.; Station Commander R.A.F. Station, Kohat 1943; Dy. Chief of Air Staff and Dy. Commander I.A.F. 1947-52; Chief of Air Staff, Indian Air Force from 1954.

Menon, V. K. Krishna, M.A. (London); M.Sc. (Econ. London); Bar-at-Law, LL.D. Glasgow (Honoris causa); *Padma Bhusan* 1954; b. May 3, 1897; educated at Malabar, Madras and London; Secretary, India League (London) 1929-47; Councellor, St. Pancras, London, 1943-47; Special Representative, Government of India 1946-47; represented India in various International Congress; High Commissioner for India in London 1947-52; Delegate to U.N. Nov. 1952-53; First Editor, Pelican Books; 20th Century Library (Bodley Head); Minister without portfolio, Government of India 1956; Minister of Defence, Government of India from 1957.

Menon, Lakshmi N.—born in 1899 at Trivandrum; educated at Trivandrum, Madras and London; was lecturer of Queen Mary's College, Madras 1922-25 and Isabella Thoburn College, Lucknow 1930-33;

represented India as an alternate delegate to the U.N. General Assembly in Paris 1948 and New York 1950 ; also represented India at the Third Session of the Commission on the Status of Women ; appointed Parliamentary Secretary to the Ministry of External Affairs 1952-57 ; Dy. Minister of External Affairs from 1957.

Mody, Sir Homi P., M.A., Bombay ; Member, Municipal Corporation, 1913-14; and its President, 1923-24 ; Chairman, Mill-Owners' Association, Bombay, 1929-34; President, Indian Merchants' Chamber, 1928 ; President, Employees' Federation of India, 1933-41 ; attended Round Table Conference ; Member, Central Assembly 1929-43 ; Member, Viceroy's Executive Council 1941-43; Director, Tara Sons Ltd.; Delegate, I. L. Conference, Geneva, 1937 ; Governor of Bombay, Sept. 1947 ; Governor of Uttar Pradesh, 1949-52.

Mudaliar, Sir A. Ramaswami, K.C.S.I.—born October 14, 1887 ; educated at Madras Christian College and Law College, Madras ; Advocate, Madras ; Member of the Madras Legislature, 1920-26; Mayor, Madras Corporation, 1928-30; member, Council of States 1930; member, Indian Legislative Assembly 1931-34; delegate to the Round Table Conference ; Leader, Indian Delegation to the British Commonwealth Relations Conference, Toronto 1933 ; member, Economic Committee of the League of Nations ; member, Viceroy's Executive Council, 1939-42 and 1943 ; was member of the British War Cabinet and Pacific War Council 1942-43 ; President of Social and Economic Council of U. N. 1946 and 1947 ; Dewan of Mysore 1946-49.

Munshi K. M., B.A., LL.B.—b. Dec. 29, 1887 ; educated at Baroda and Bombay ; enrolled as Advocate, High Court 1913 ; was a joint editor of *Young India* in 1915 ; Secretary, Bombay Home Rule League, 1919-20 ; Fellow of the Bombay University ; member, Bombay Legislative Council 1927-30 ; member, Baroda University Commission, 1926, member, All-India Congress Committee 1931-37 ; was Home Minister, Bombay, 1937-39 ; a well-known Gujarati novelist ; left Congress in 1941 but rejoined in 1946 ; Agent-General of India in Hyderabad State 1947-48 ; Food and Agriculture Minister, Government of India 1950-52 ; Governor of U.P. 1952-57 ; Kulapathi of the Bharatiya Vidya Bhavan.

Mukherji, Dr. Hirendranath M.A. B.Litt. (Oxon.), Bar-at-Law—born Nov. 23, 1907 ; educated at Calcutta University, St. Catherine's, Oxford and Lincoln's Inn, London ; Lecturer in history & politics, Andhra University 1934-45 ; Head of the Department of History Surendranath College since 1936 ; Lecturer, Post-Graduate Department, Calcutta University 1940-45 ; member, Executive Committee, Bengal P.C.C. 1938-39 ; member, A.I.C.C. 1938-39 : Foundation member, Friends of the Soviet Union 1941 ; Editor, *Indo-Soviet Journal* 1941-45 ; Associate Editor, *Calcutta Weekly Notes* 1945-52 ; member, Bengal State Committee, Communist Party of India 1947 ; Member, Lok Sabha from 1951.

Mukherji, Sir Biren, M.A. (Cantab)—born 1899 ; educated at Calcutta and Trinity College, Cambridge ; is the Managing Director of the well-known firm of Martin-

Burn and also Indian Iron & Steel Co.; youngest son of Sir Rajendranath Mookherjee; joined the firm of Martin & Co. in 1924; became a partner of Burn & Co. in 1931 and of Martin & Co., Ltd. in 1943; was Sheriff of Calcutta, 1940-41; was member of the National Defence Council.

Nadar, Kamraj—b. 1903; President of the Tamil Nad Congress Committee 1939-1952 excepting six months; leader of the Madras Legislature Congress Party from March 1954 consequent on the retirement of Mr. C. Rajagopalachari; Chief Minister of Madras from April, 1954.

Nag, Dr. Kalidas—born 1892; educated Calcutta and Paris University; Professor, Scottish Churches College, Calcutta 1915-19; Principal, Mahendra College, Galle, Ceylon; representative of the Calcutta University at the International Conference of Libraries and Librarians, Paris 1923; Professor, Calcutta University, Post-Graduate classes from 1923-55; visiting Professor, University of Howaii; Delegate, 2nd British Commonwealth Relations Conference, Sydney 1938; General Secretary, Asiatic Society of Bengal, 1942-46; Member, Rajya Sabha 1952-54.

Namboodiripad, E. M. S.—born in Malabar 1908; entered active political field during civil disobedience movement in 1932; formed with his friends Kerala Congress Socialist Party in 1934; was for sometime Joint Secretary of the All-India Congress Socialist Party; is a founder-member of the Kerala Communist Party 1937; a prominent member of the Central Committee of the Communist Party of India and also a member of the Politburo since 1951; is a journalist and a writer in both English and Malayalam; visited People's Republic of China; Chief Minister of Kerala from 1957.

Nanda, Gulzarilal, M.A., LL.B.—born July 4, 1898; educated at Foreman Christian College, Lahore; Research Scholar, Allahabad University 1920-21; Secretary, Textile Labour Association, Ahmedabad, 1922-46; Minister of Labour, Bombay Government, 1946-50; Deputy Chairman, National Planning Commission, 1950-51; Minister for Labour, Employment, Planning, Government of India.

Nayar, Dr. Sushila—born at Kunjah in Gujerat District; came in contact with Mahatma Gandhi in 1930; was sent to jail several times, 1942, 1944; was Secretary to the Kasturba Trust Medical Board; toured Noakhali with Mahatma Gandhi during communal riots; worked for the recovery of abducted Muslim women in Punjab 1948; toured America, England and Scandinavia 1948-50 and took graduate's course in child and maternal care at John Hopkins University, U.S.A.; was Minister of Health, Delhi State.

Nehru, Jawaharlal—born Nov. 14, 1889; only son of the late Pandit Motilal Nehru; educated at Harrow School, Trinity College, Cambridge and Inner Temple London; Advocate, Allahabad, High Court; Secretary, Home Rule League, Allahabad, 1918; Member, A.I.C.C. since 1918; suffered first imprisonment for organising strikes and hartals during Prince of Wales' visit 1922-23; General Secretary, A.I.C.C., 1929; Chairman of the Allahabad Municipality; arrested in the Nabha State and put on prison for agitation of the Akalis to perform a religious ceremony ; visited Europe and attended Brussels Conference of Oppressed Nationalities as the official delegate of the Congress ; organised Bihar earthquake relief ; was again arrested in Feb. 1934 and kept in jail 1935 ; went to Europe for his wife's treatment who died there, 1936 ; President, Indian National Congress, 1929-30, 1936, 1939 and 1946 : visited Spain during Spanish Civil War 1938 ; elected first President of the All-India States Peoples' Conference, 1939 ; visited China, August, 1939 : suffered imprisonment for participating in Congress movements, 1921, 1922, 1930, 1932, 1934-35, 1940 and 1940-45 ; took active part in the Cripps negotiation, 1942; organised a Defence Council for the officers and men of the Indian National Army formed by Subhas Bose ; visited Singapore, March, 1946 ; joined interim government as member for External Affairs and Commonwealth Relations and was nominated Vice-President, Sept. 1946 ; Honorary LL.D., Patna University, 1946 ; same degree from Delhi University, 1948 ; called Asian Relations Conference at Delhi, 1947; Prime Minister of India since 1947; participated in Commonwealth Prime Ministers' Conference, London, Oct. 1948; addressed United Nations Assembly at Paris, 1948 : visited U.S.A. and Canada at the invitation of U.S. & Canadian Governments ; attended the Coronation of Queen Elizabeth II 1953 ; attended the Conference of Prime Ministers of S-E. Asia in Colombo 1954; Congress President 1951, 1952 & 1953 ; His books include—*Autobiography, Glimpse of World History ; Discovery of India ; Letters from Father to his Daughter; Bunch of old letters; etc.* hobby—mountain climbing, swimming and horse riding.

Neogy, Kshitish Chandra, M.A., LL.B.—born 1888 ; educated at Dacca & Calcutta; started practice as an advocate ; Member, Central Legislative Assembly 1921-34 & 1942-45 ; Adviser to States Delegation to R.T.C. in London, 1930-31 ; Dewan of Mayurbhanj State 1940-42 ; Political Adviser of Mayurbhanj State 1940-42 ; Member, Standing Committee of Ministers of the Chamber of Princes 1940-42 ; Chairman, Committee of Ministers, Eastern States 1940-42 ; Legal Adviser, Chamber of Princes; Member, Central Legislative Assembly 1942 and again in 1946; member, Council of Human Rights, U. N. 1942 ; Chairman, Indian Railway Enjuiry Committee, 1947; Minister of Relief & Rehabilitation, Govt. of India 1947; Minister of Commerce 1948-50 ; Chairman, Finance Commission 1951-53 ; Member, Planning Commission 1953-57.

Norkey, Sherpa Tenzing—born 1914 in Eastern Nepal : began his life as porter to mountaineering parties at Darjeeling ; joined many expeditions—mainly Everest expeditions from 1935—such as Shipton, Ruttledge, Tilman's parties; reached at height of 28,210 ft. of Mt. Everest with Swiss expedition in 1952 ; conquered the summit of Mt. Everest with Hillary on May 29, 1952 ; awarded George Medal by the President of India ; now Director, School of Mountaineering, Darjeeling.

Pal, Dr. Radhabinod, M.A., LL.D.—Advocate of the Calcutta High Court from 1921 ; Tagore Law Professor of the Calcutta University for 3 times; attended the International Congress of Comparative Law 1927 and was elected President of the International Assembly of Comparative Law; Judge, Calcutta High Court 1941-43; Vice-Chancellor, Calcutta University 1944-46; Judge, International Military Tribunal for trial of war criminals for the Far East in Tokio, 1946-48; elected member, International Law Commission in 1952; author of several law books; awarded *Padma Bibhusan*, 1959.

Pandit Mrs. Vijayalakshmi—born 18, Aug., 1900; sister of Pandit Jawaharlal Nehru; was the first woman Minister in India; took active part in the Congress movements of 1930 and 1932; President, All India Women's Conference; 1941; was sent to jail in 1930 and 1932; took extensive tour to America in 1944-45; again Congress Minister of U. P., 1946; leader of India Delegation to U. N. in 1946, 1947, 1948, 1952 and 1953; India's Ambassador at U.S.S.R. 1948-49; India's Ambassador to U.S.A. 1949-51; President, U. N. General Assembly, 1953; High Commissioner of India in London from 1954; has received many honorary doctorates from Indian and foreign universities.

Pant, Pt. Govind Vallabh—born Sept., 1887; educated at Muir College, Allahabad; enrolled advocate, 1909; Leader, Congress Party U.P. Assembly; was leader of the Swaraj Party in U.P. Council for seven years; took leading part in the non-co-operation movement, 1921; took active part in Satyagraha movement, 1930; Member, Cenrtal Legislative Assembly in 1935; was Congress Prime Minister of U.P., 1937-39; again in 1946-54; Home Minister, Govt. of India from 1955.

Pakvasa, M. Mancharam, B.A., LL.B.—Born 7th May, 1882; educated at Elphinstone High School and College, Bombay; was solicitor of Bombay High Court for 30 years; was in jail in 1932-1940 and 1942-43; was President, Bombay Legislative Council upto 1947; Governor of Madhya Pradesh 1947-5 .

Panikkar, Sardar K. M.—b. 1895; educated in the Madras Christian College and Christ Church College, Oxford where he was the first Indian to obtain a first class honours in history, 1917; Professor, Aligarh University; joined non-co-operation and edited *Swarajya*; the first editor of *Hindusthan Times*, Delhi, 1925; went to Europe 1925-31; Secretary, Chancellor of the Princes' Chamber 1931-37; held concurrently, portfolio of the Foreign, Political and Education as Minister of Bikaner; India's representative at the Pacific Conference, Canada, 1942; delegate to U. N. General Assembly; India's Ambassador to China 1943-52; India's Ambassador to Egypt and Minister to Syria, Jordon, Lebanon and Libya; Member, States Reorganisation Commottee; now Ambassador to France from 1956.

Patil, S. K.—born August 14, 1900 in Sawantwadi; educated at Bombay and London; studied journalism at the London School Economics and London University College; joined non-cooperation movement in 1920 and conducted 'National Schools' till 1924: also took part in various civil disobedience movement launched by the Congress and was imprisoned several times; was a member of the Working Committee of the Congress 1947-51; has been a member of the A.I.C.C. for last 27 years; was member of the Bombay Corporation for 18 years; was President of the Bombay Provincial Congress Committee, 1946; was member of the Bombay Legislative Assembly for 10 years; was Chairman of the Government of India's Film Enquiry Committee; now Minister of the Central Government from 1957.

Patwardhan, Achyut—educated ted at Central Hindu College, Banaras; took M.A. degree and proceeded to Europe; became Professor of Economics on his return; joined C. D. Movement in 1932; started along with others Congress Socialist Party; went under-ground during August revolution, 1924-46.

Sri Prakasa, B.A., LL.B. (Cantab), Bar-at-Law—b. 1890; educated at Allahabad and Cambridge; was called to the Bar in 1914; was connected with Banaras Hindu University 1914-17; member, Banaras Municipal Board 1921-25; member of the A.I.C.C. 1918-45; President of the U.P.C.C. 1934-35; General Secretary, Congress 1929-31; member, Central Assembly 1935-46; was imprisoned five times during the national movement; India's High Commissioner in Pakistan 1947-49; Governor of Assam 1949-50; Commerce Minister, Central Government 1950-51; Governor of Madras 1952-56; Governor of Bombay from 1956.

Paranjape, Sir R. P.—born 16 Feb. 1876, M.A. (Cantab); D.Sc. (Hon. Calcutta); was Vice-Chancellor, Lucknow University; educated at Ferguson College, Poona, St. John's College, Cambridge, Paris and Gottingen; Senior Wrangler of Cambridge 1899; Principal and Professor, Ferguson College, 1902-20; Minister of Education, Bombay; 1921-23 & 1929; President, Indian Liberal Federation; Fellow, Bombay University 1905-7; member, Bombay Legislative Council, 1913-16; Vice-Chancellor, Indian Women's University 1916-20; member, India Council, 1927-32; High Commissioner for India in Australia 1944-47.

Ranga. N. G.—born 7, Nov., 1900; educated at Oxford; Professor of Economics, Pachyappa's College Madras, 1927-30; member, Congress Working Committee, 1948; President, All-India Kisan Congress, Rural People's Federation, Andhra Provincial Congress Committee; was member of the Indian Parliament for several years; President, All-India Handloom Weavers' Congress; India's delegate to FAO Conference, Copenhagen, 1946 and I.L.O. Conference, San Francisco, 1948; led Indian delegations to the London (1946) and the Hague (1947) Conference of International Federation of Agricultural Producers; Resigned Congress 1951; started Krishikar Lok Party.

Ray, Dr. Bidhan Chandra—b. 1st July, 1882 at Patna; educated at Patna; M.D. degree from Calcutta University, 1908; L.R.C.P. (London) and M.R.C.S. (Eng.) in 1909; M.R.C.P. (London) and F.R.C.S. in 1911; President, Indian Medical Council 1939 & 1944; Fellow of the Calcutta University 1916; Vice-Chancellor, Calcutta University, 1942-44; D.Sc. (Cal.) conferred in 1944; Alderman of Calcutta for two times; Mayor of Calcutta for two times; imprisoned for six month in 1931; member, Bengal Legislative Council, 1923; President B.P.C.C.; Chief Minister, West Bengal from 1947.

Ray, Mrs. Renuka—A graduate of the London School of Economics; was a member of the Central Legislative Assembly from 1943-45; and then. member of the Indian Constituent Assembly 1946-50; a promient member of the All-India Women's Conference; Member, Board of Education; member, Governing body of Tagore's Viswabharati; Minister of Rehabilitation, West Bengal; 1952 57. Now member of the Parliament.

Raman, Sir Chandrasekhara Venkata, M.A., LL.D. D.Sc., (Cal.) F.R.S.—born at Trichinopoly, Nov. 7, 1888; educated at cated at Hindu College Visakhapatnam and Presidency College, Madras and graduated in 1904 and got master's degree three years later; entered the Indian Finance Department as Asst. Accountant General after winning first place in a competitive examination; came to Calcutta in 1909 where he began his scientific researches: Palit Professor of Physics at the Calcutta University 1917; visited Europe in 1921 as a delegate to the Congress of the Universities of British Empire; became Ghose Travelling Fellow, 1924; visited America and represented India at the centenary of the Franklin Institute of Philadelphia; represented India at the bicentenary of the Russian Academy of Sciences at Leningrad and Moscow, 1925; discovered the phenomena known as '*Raman effect*' in 1928; received Metucci Medal, Rome 1928; created Knight, 1929; received Hughes Medal of the Royal Society, 1940; awarded Nobel Prize for physics, 1930; resigned Calcutta University Professorship 1933; and became Director of the Bangalore Science Institute; began to build Raman Institute in Bangalore 1943; awarded Franklin Medal of America, 1951; President, Indian Science Congress 1928, Fellow, Franklin Institute, Royal Irish Academy etc.

Radhakrishnan, Sir S. M.A. D.LITT., F.B.A.—Born 5th September, 1882; was educated in the Madras Christian College; was Professor of Philosophy, Presidency College, Madras (1911-17), Mysore University (1918-22); George V. Prof. of Philosophy, Calcutta University (1931-36); Vice-Chancellor, Banaras Hindu University (1939-48); Upton Lecturer, Manchester College, Oxford (1925 and 1920-30) Haskel Lecturer in comparative religion, University of Chicago (1926); President, Indian Philosophical Congress, 1927 & 1950; Hibbert Lecturer (1929); was Spalding Professor of Eastern Religions, Oxford; member of the International Committee on Intellectual Co operation, League of Nations (1931-39); Hony. Fellow, Asiatic Society of Bengal; President, Indian Universities Commission; was India's Ambassador to U.S.S.R.; now Vice-President of India from 1952. Author of *Indian Philosophy* (2 (vols); *Hindu View of Life; Kalki*, etc.

Rajagopalchari, C., B.A., B.L.—born in 1879, educated at Presidency College and Law College, Madras; joined Bar in 1900 at Salem; gave up his practice and joined Rowlatt Act Satyagraha campaign, 1919; served many periods of imprisonment; edited Gandhiji's *New India;* General Secretary of the Congress, 1921-22; member, Working Committee of Congress 1941 ; and again in 1946; President, Tamil Nad Congress Committee till 1935; was Premier of the Congress Ministry at Madras, 1937-39; left Congress in 1942 on account of the difference of opinion but joined in 1945; member, Interim Government, 1946-47 ; Minister, Government of India, 1947; Governor, West Bengal, 1947-48; Governor-General of India, 1948-50 ; Minister of Home Affairs, Government of India, 1950-51; Chief Minister, Madras 1952-54; *Bharat Ratna* 1955; well-known author of many Tamil books on Gita, Mahabharata, Ramayana, etc.

Rajendra Prasad, Dr. M.A., M.L., LL.D. (All.)—born 3rd Dec., 1884 in Jiradei in the district of Saran, Bihar; passed M.L., 1925; leader of the Behari Students' Conference; member of the Patna University Senate for several years; twice President, All-India Hindi Literary Conference; joined Mahatma Gandhi in 1917 in famous Champaran agrarian affairs; joined the non-cooperation movement in 1920; General Secretary of the Congress, 1922; member, Congress Working Committee for several years; President, Bombay and Calcutta Congress 1934 and 1939; imprisoned for August movement in 1942 and released in 1945; Minister of Food, Indian Union, 1947; President, Indian Constituent Assembly 1946-49; President, Republic of India from 1950 ; author of the '*India Divided' and Autobiography.*

Rajendra Sinhji, General—born June 15, 1899; belongs to the ruling family of Jamnagar, Kathiawar ; nephew of the great cricketer Ranjit Sinhji; educated at Rajkumar College, Rajkot and Royal Military College Sandhurst ; was commissioned in 1821 ; joined 2nd Royal Lancers ; went to N. Africa as Squadron Commander in 1941; is the first Indian to win D.S.O. in the World War II ; the first and only Indian to attain brevet rank of a major; was appointed commandant of the 2nd Royal Lancers in 1943 ; Deputy Director of Public Relations, Govt. of India in Wahsington, 1945; first Military Attache in Washington, 1945; and was awarded the U.S. "Legion of Merit"; became Brigadier, 1946; Major-General in 1947 and Lt. General in 1948; Director of Indian Armoured Corps, 1946; Commander of Delhi and East Punjab Sub-Area, 1947 G.O.C. in Chief, Eastern Command 1948, G.O.C.-Southern Command, 1948-52; was the leader of the Hyderabad Military Campaign, 1948; Commander-in-Chief, Indian Army 1952-54; retired from active service 1955.

Rao, Dr. Ramakrishna—born April 13, 1899; graduated from Fergusson College, Poona; entered political life in 1924 while practicing as a lawyer in Hyderabad; was member of the Hyderabad Reform Committee ; was imprisoned during Quit India Movement and again in 1947; served as Education and Revenue Minister in the Hyderabad Cabinet 1950-52; was elected member of the Hyderabad Assembly; Chief Minister of Hyderabad 1952-56; appointed Governor of Kerala from 1956.

Rautroy, Satchidananda—born 1915 at Khurda, Orissa; executive officer, Keshoram Cotton Mills, Calcutat; participated as Government of India nominee in Social Services Seminar in Australia and New Zealand 1952; attended Harvard University International Seminar of Arts and Science; story writer in Oriya, has written numerous books of poems.

Reddy, B. Gopala—born Aug. 5, 1907; graduated from the Viswabharati, Santineketan, 1927, participated in the Salt Satyagraha 1930; went to jail in 1930, 1932, 1939, 1942; member, Madras Legislative Assembly 1937; Minister, Local Self-Government, Madras 1937-39; was Member, Andhra, University Senate; Minister of Finance, Madras Government 1947-52; was Pro-Chancellor of the Andhra University; Chief Minister, former Andhra State 1955-57; Minister of Central Government from 1958.

Rao, Dr. V. K. R. V. Ph.D. (Cambridge)—born July 7, 1908; represented India on International Food Conference at Quebec, Washington and Copenhagen; worked as Director of Statistics and afterwards Planning Adviser, Ministry of Food, Government of India; was Food Adviser to the Indian Embassy, Washington 1946-47; was Chairman U. N. Sub-Commission on Economic Development, 1947-50; member, governing council, International Association for research in income and wealth 1947-51; correspondent for India, Royal Economic Society, London; Past President, Indian Economic Association 1949; was member, Central Board of Film Censors, Press Commission, Planning Commission Advisory Board and National Income Committee; University Professor and Head of the Department of Economics, Delhi, University and concurrently founder and director, Delhi School of Economics; now Vice-Chancellor, Delhi University.

Rukmini Devi—born 1904 at Madura, married 1920 to late Dr. G. S. Arundale, President, Theosophical Society; started dancing in early age; exponent of Indian dance and music, specialising in Bharata Nrityam, music, drama, painting and crafts; made extensive tours in different countries with dance recitals and lectures; was member, Indian National Commission for co-operation with UNESCO, President, Kalakshetra International Arts Centre, Adyar, Madras, Member of the Parliament; Padma Bhusan, 1956.

Sachar, Bhim Sen, B A, LL B.—born Dec. 1, 1893. Educated in Punjab and joined Bar 1915, joined non-cooperation movement, 1921; member, Punjab Legislative Assembly 1936-45; Member, Constituent Assembly 1949, Finance Minister Punjab Government 1946-47, Chief Minister, Punjab, India 1949 and 1952-56, Governor of Orissa from 1956.

Sampurnanand—born Jan. 1, 1891; started as school master; worked at Daly College, Indore, 1915-18; was Professor, Kashi Vidyapith 1922; Member, A.I.C.C.; was Secretary, U. P. Provincial Congress Committee; President, Second All-India Socialist Conference; Ex-Minister of Education, U.P. Government, 1938-39; was Mini[illegible] Education, Finance and [illegible] U.P., 1947-52; again Minis[illegible] U.P. Government 1952-54; [illegible] Minister, U.P. from 1955.

Saksena, Shibanlal, M.A.—Born July, 1907; educated at Kanpur and Allahabad and Agra Universities, Professor, St Andrews College, Gorakhpur 1930-31, joined non-co-operation movement in [illegible]; joined Salt Satyagraha in 1930, General Secretary, Kanpur District Congress Committee 1931, member U.P.P.C.C and A.I.C.C for several yaers, became Congress M.L.A 1937-46, imprisoned several times including during 'Quit India' movement, Member, Constituent Assembly 1946, Vice President A.I.T.U.C upto 1945

Saksena, Mohanlal, B Sc, LL B—born 1896, after passing LL B examination joined bar at Lucknow in 1919, actively associated with the Congress politics since 1921, was imprisoned several times since 1921 for national cause, member, Municipal Board, Lucknow 1923-25, Member, U P Legislative Council and Chief Whip, Swaraj Party 1924 26 member, Central Assembly for several years; member Indian Constituent Assembly, Minister, Relief and Rehabilitation, Government of India 1949; Member, House of the People, 1948-49; Member Indian Parliament

Santhanam, K.—born 1895, graduated in 1917, enrolled in High Court, Madras 1920, gave up practice in the same year, was in jail for several years for non cooperation movement was editor, *Indian Express* 1933-40 Member, Indian Legislative Assembly 1937-42 Member, Constituent Assembly, Minister of State, Government of India; dent, In[illegible] Vindhya Pradesh; Chair- 1946-[illegible] Finance Commission from India

***[illegible]* Benoy Ranjan,** C I E., I.C.S.—born Jan. 1, 1898, educated at Calcutta and Oxford; entered I.C.S. [illegible] 1922; [illegible] Government of [illegible] then Press Officer during [illegible] Revenue Secy Govt. of [illegible] 1940-43; Director of Civil [illegible] tion 1942-43, Relief Comm[illegible] 1942-43, Director General of [illegible] Government of India 1943-46; [illegible] Department of Food, Gover[illegible] of India 1946, Minister to the [illegible] bassy of India in U S A, 1947 [illegible] Indian Ambassador to Italy [illegible] Yugoslavia 1950 51 and [illegible] Indian Ambassador to U S A, [illegible] 52, Member, Indian Delegation [illegible] U N General Assembly [illegible] Head of the Indian Delegation [illegible] Economic and Social Council of [illegible] U N in 1949 & 1953 and also [illegible] the annual conference of F.A.O. [illegible] 1949 and F A O Council [illegible] 1951, 1953, Indian Ambassador to Japan 1954 56, appointed Director General of Food and Agriculture Organisation in 1956

Sen, Asoke Kumar—born [illegible] 1913, educated at Calcutta [illegible] London, qualified for the Bar from [illegible]n in 1941 and joined [illegible] [illegible] in the same year; Professor, Law and Economics, [illegible] College, Calcutta 1941-43; Junior Standing Counsel in 1950, dele[illegible] to the 10th Session of the [illegible] 1955 was elected to Lok Sabha [illegible] 1957 from Calcutta N-E Constituency, Minister of Law, Government of India from 1957

Shrinagesh, General S, [illegible] born May, 1903, educated [illegible] Cambridge University and [illegible] entered Sandhurst Military College [illegible] was commissioned in 1923, [illegible] service in Burma, Assam & [illegible] tan and with the Lushai Brigade [illegible] officiated as Brigade Commander [illegible] the 64th Indian Infantry Brigade [illegible] commanded the [illegible] Infantry Brigade and [illegible] promoted to G.O.C. Madras [illegible] became Adjutant General [illegible] India in 1948; took overall command of Indian Forces in [illegible] Kashmir in Sept. 1948; promoted to Major-General in 1948; [illegible] Chief of the Army Staff [illegible] General in 1955; awarded [illegible] of Merit, the highest of [illegible] decorations bestowed on a [illegible] military officer, 1955; Principal, Administrative Staff College, Hyderabad.

[illegible], Nirmal Kumar, M.A.—born on Oct. 31, 1894; educated at Calcutta University; became M.A. (Cantab) with 1st Class [illegible] in English; lecturer, School of Oriental Studies, London University 1922; Reader of English, Lucknow University 1922-26; Professor of English, Lucknow University 1928-1951; Dean of the [illegible] University 1933-51; [illegible] University Board [illegible]; Chairman, Inter University Board [illegible]; Member, Central Advisory Board of Education since 1946; [illegible] and Secretary, Indian University Commission 1948-49; [illegible], Union Public Service Commission [illegible]-55; Now Vice-Chancellor, [illegible] University from 1955.

[illegible] E. P. N.—born April 18, [illegible] educated at Muzaffarpur and [illegible] College, Calcutta; M.A., [illegible] District Board, Muzaffarpur; [illegible] member of the [illegible] Council and [illegible] Bihar Legislative Assembly; [illegible] University; [illegible] to Nepal; [illegible]

[illegible] Punjab 19[illegible]-5[illegible]; [illegible] Indian Ambassador to Japan [illegible]

Singh, Sardar Baldev—educated at Khalsa College, Amritsar; joined Unionist Ministry of Punjab; was Minister for Development and Civil Supplies, Punjab, 1952; leader, Panthick Akali Party of the Punjab Coalition Ministry, 1946; Defence Minister, Indian Interim Government, 1946; Defence Minister, Government of India 1947-52.

Singh, Raja Sir Maharaj, M.A., C.I.E., K.T., Bar-at-Law—born 1878; educated at Harrow; Government Service in 1903; Asst. Secy. Government of India [illegible]; Secretary to U.P. Government, 1919; Commissioner, Allahabad, 1927 and 1929; Chief Minister, Jodhpur State 1924; Agent-General to Government of India in South Africa; Home Member, U.P. Government 1935-1937; Vice-Chancellor, Lucknow University 1941; Member, Committee of Enquiry in the position of Indians in East Africa 1946; Member, Indian delegation to the U.N., 1946; Governor of Bombay 1948-52.

Singh, Master Tara—born June 24, 1885 in Hindu family; embraced Sikh religion at the age of 17; began his life as a teacher; took prominent part in Nankana Sahib agitation; joined C. D. movement in 1930; a prominent Sikh leader of the Akalis; was once a prominent member of the Congress Party; President, Shiromani Gurdwara Prabandak Committee; [illegible] imprisonment for politi[illegible] prominent supporter of [illegible] homeland for the Sikhs.

Singh, [illegible]—[illegible] 1894; educated at [illegible] sity; author, journalist, lecturer, traveller; served as special correspondent of *'Observer'* (London) and and other papers during Prince of Wales' visit to India 1921-22; contributed to magazines, newspapers, reviews all over the world; has lectured before prominent societies; author of many books, was contributor to *'Hindu'*, Madras, *'Literary Digest'*, America.

Singh, Jaipal—born 3rd Jan. 1903 in Ranchi district belonging to Adibasi race; educated at Ranchi, Oxford; was I.C.S. probationer at Oxford, 1927-28 which he resigned; leading hockey player of India; first Indian to get full Oxford blue; was in Colonial Service in British East Africa, 1933-3[illegible]; Colonisation Minister and Revenue Commissioner, Bikaner, 1937-38; editor *'Adibasi Sakam'*, member, Board of Secondary Education, Bihar; member Constituent Assembly of India and now member, Indian Parliament, President, Jharkhand Party.

Sinha, Sri Srikrishna—born Oct, 21, 1888; educated at Patna College and qualified for law in 1915; joined politics in 1921; was chosen as the leader of the Swaraj Party in B. & O. Council in 1937; Congress member in the Central Legislative Assembly 1936; Chairman, Monghyr District Board, 1937; imprisoned for a total period of 10 years for Congress agitation; Chief Minister of Bihar, 1937-39; state again since 1946.

[illegible] r, [illegible] a, Satyanarain—born 1900
Finance [illegible] nga: educated at Patna;
political career with a
r, Ber oy imprisonment, in jail in
—born Jan. non-cooperation move-
alcutta and Ox, Bihar Legislature
Whip of the Congress Party, Central Assembly and also in the Constituent Assembly; Minister of State for Parliamentary Affairs, Govt. of India from 1949.

Sinha, Dr. Satyanarain—born Oct. 14, 1910 in Bihar; educated at Santiniketan, Kashi Vidyapith and Frankfurt-on-Main University where he took doctorate degree; studied Russian affairs under Maxim Gorky's guidance in U.S.S.R.; was first Secretary, Indian Legation, Switzerland; M. P. from 1952.

Sitaramayya, Dr. Pattabhi—born Nov. 24, 1880, in Andhra; educated at Christian College and Muslim College, Madras; private medical practitioner, 1906-16; joined Congress in 1898. discontinued medical practice in 1916; member of the A.I.C.C. 1916-48; member of the Congress Working Committee 1928-46 President of the Indian States Peoples' Conference; brought out official history of the Congress; started English weekly *'Janmabhumi'* in 1919; imprisoned for Salt Satyagraha in 1930; was sent to jail twice, later in 1942 and 1933; was detained in August, 1942 under D. I. Rules; President, Congress 1948-49; member, Constituent Assembly of India and later of the Parliament till July, 1952; Governor, Madhya Pradesh 1952-56.

Savarkar, Vinayak Damodar—born 1883, at Nasik; Bar-at-Law; educated at Ferguson College, Poona; joined nationalist movement; was sent to England where he worked for Indian freedom under Shyamaji Krishnavarma and Madame Cama; was arrested in England for Nasik Conspiracy Case, but escaped from ship at Marseilles in 1910, but was re-arrested and transported for 15 years; transported to Andamans from where afterwards interned at Ratnagiri; was set free by interim Bombay Ministry 1937; is a linguist and poet; was President of the Hindu Mahasabha for several years; retired from active politics.

Sokhey, Major-General Sir Sahib Singh, I.M.S.—born December 15, 1887; obtained medical degrees in Edinburgh and London; did post-graduate work in John Hopkins University; Harvard Medical School; Toronto Medical School and Trinity College, Cambridge; joined I.M.S. 1913; served in the World War I, 1915-21; Rockefeller Foundation Fellow 1923-25; joined Haffkine Institute 1925 as as Assistant Director; was Director from 1932-1949; Assistant Director-General, WHO 1950-1952; received Stalin Peace Prize in 1953.

Tata, Ratanji Dadabhoy Jhangir—born July, 1904; educated in India, France and Japan; first pilot to qualify in India; holds 'A' and 'B' licences; is Chairman of the Board of Air India International Corporation; member, Indian Airlines Corporation; Director, Hindusthan Aircraft Ltd.; Chairman, Tata Industries; was member of the Indian delegation to the third session of U.N. General Assembly, Paris, 1948; Honorary Group Captain, I. A. F.; Honorary D.Sc., Allahabad University; Officer of the Legion of Honour, France; awarded "International Management Man" by the National Association of Foremen, U.S.A.; *Padma Bhusan* by the Government of India.

Tandon, Purshottamdas—born 1882 at Allahabad; educated at Government College and Muir Central College, Allahabad; passed LLB. degree and enrolled as advocate at Allahabad; Law Minister, Nabha State 1914-18; Chairman, Allahabad Municipal Board; joined Congress in 1899; gave up his profession and joined freedom movement in 1919; went to jail seven times; President, U.P. Congress 1923 and 1948; general manager, Punjab National Bank 1926-29; founded the Central Kissan Sangh in 1930; Speaker U.P., Legislative Assembly 1937-1950; member, Constituent Assembly; founder of the Hindi Sahitya Sammelan; was President of the Congress.

Tara Chand Dr.—born 1888; educated at Delhi, Meerut, Allahabad and Oxford; Professor of history at the Kayastha Pathshala College, Allahabad and then its principal for 20 years; Vice-Chancellor Allahabad University; Secretary, Ministry of Education Government of India; was Indian Ambassador to Iran; and author of *Influence of Islam on Indian Culture, Short History of the Indian people.*

Thimayya Lt. Gen. K. S.—born March 31, 1906; educated at Bishop Cotton Boy's School, Bangalore, Prince of Wales Royal Indian Military College, Dehra Dun, Royal Military College, Sandhurst; Commissioned into Indian Army 1926; joined 4/19 Hyderabad Regiment 1936-39; Adjutant, 5th Bn. (Madras) U.T.C. 1939-41; served in Malaya 1942-43; promoted to Lt Col and commanded 9/19 Hyderabad Regiment: Commanded 268 Indian Infantry Brigade in Japan as occupation-forces 1945 Indian Army Forces Na Committee; Commander, Division 1947; Comman Troops in Kashmir mandant, National Defence Academy, Dehra Dun, 1950-51; Military Adviser to U.N. Delegation in [illegible] 1951-52 in connection with Kashmir Affairs; Chairman, Neutral Nations Repatriation Commission for Korean prisoners, 1953; Chief of the Army Staff, since 1957.

Thacker, M. S.—educated at Ahmedabad and Bombay; graduated in engineering from Bristol University; worked in Calcutta Electric Supply Corporation 1932-1947; Professor of Power Engineering, Indian Institute of Science, Bangalore 1947-49; Director, Indian Institute of Science, 1949-55; President, Indian Science Congress 1947-48; President, Institute of Engineers 1956; President, Institute of Metals 1955-56; now Director-General, Council of Scientific and Industrial Research since 1957.

Thakurdas, Sir Purushottamdas, C.I.E. M.B.E.—Born May 30, 1881; was educated at the Elphinstone College and joined the firm of Narandas Jayram, 1902; Sheriff of Bombay 1920; member, Inchcape Committee; Member, Council of State 1922-23; Member, Legislative Assembly, 1924-30; Thrice President, Indian Merchants' Chamber; President, Indian Chamber of Commerce; Member, Royal Commission on Currency 1926; Vice Chairman, Indian Central Banking Enquiry Committee.

Trivedi, Sir Chandulal [illegible]lal, K.C.S.I.—born 2nd [illegible] 18[illegible]; educated at Elphinstone College, Bombay and St. [illegible]ege, Oxford; entered [illegible] 17; Assistant Commis[illegible] P.; Deputy Secretary, [illegible] of India (Home Dept.) [illegible]issioner of Berar 1936; Chief Secretary, Government of Central Provinces and Berar, 1937-42; Secretary, Government of India (War Dept.) 1942-45; Governor of Punjab, 1947-52; Special Officer for Andhra Affairs, 1953; Governor of Andhra 1953-57; Member, Planning Commission from 1957.

Visvesvaraya, Sir M., K.C.I.E.—Born 15th Sept. 1861 in Kolar district; graduated from Central College, Bangalore, 1881; joined Bombay engineering service and retired in 190[illegible]; Chief Engineer, Mysore State 19[illegible]9; Chairman, Bombay Irrigation Enquiry Committee: Chairman Indian Economic Enquiry Committee 1925; Member, Bombay Back Bay Enquiry Committee, 1929; in the capacity of consulting engineer and Adviser served in a number of States such as Baroda, Gwalior, Bhopal, Kolhapur and municipalities such as Bombay, Karachi and Nagpur; was responsible for starting Mysore University, Bhadravati Iron Works and Krishrajasagara Dam; founded Jayachamarajendra Occupational Institute, Bangalore; President, All India Manufacturers' Organisation since 1941; Dewan of Mysore, 1912-18.

Vizianagram, Maharaja Kumar of—born Dec. 28, 1905; educated at Princes College, Ajmer and England; captain of the Indian Cricket team which toured England in 1936; a great shikari; was Minister of Justice in U.P. Government; was President of the Cricket Control Board.

Uday Shankar—[illegible] in [illegible]pur; was admitted in the Royal College of Arts, London, began to take training in the plastic art under the guidance of Sir William Rothenstein; joined famous Russian dancer

Anna Pavlova; made his own company and toured round the world; opened culture centre in Almora U P which was closed down du[illegible] W[illegible] War II.

Cal-26

E. I. P. W. Products

Stand for

PURITY RELIABILITY

and

MAXIMUM POTENCY

We Manufacture :

Specialities, Sterilised, Chemical Solutions, Colloid Products, Vaccines, Phages and Pharmaceutical Drugs,—in our own Laboratory and under the Supervision of Expert Chemist

EAST INDIA

PHARMACEUTICAL WORKS LTD.
BASUSREE BUILDINGS
102, Shyama Prosad Mukherjee Road, Cal-26

ADDENDA

Nobel Prize, 1958

Literature—Boris Pasternak (U.S.S.R.).*
Physics—Dr. Pavel Cherenkov (U.S.S.R.).
—Prof. I. M. Frank (U.S.S.R.).
Chemistry—Dr. Frederick Sangai (England).
Peace—Father Georges Pire (Belgium).
Medicine—Joshua Lederburgh (U.S.).
—Dr. Gerald W. Beaddle (U.S.).
—Dr. Edward L. Tatum (U.S.).

* Refused to accept the Prize.

Rulers

Pakistan—General Ayub Khan.
France—General de Gaulle (President).
—Michel Debri (Prime Minister).
Lebanon—Rashid Karami (Prime Minister).
Burma—General Ne Win (Prime Minister).
Union of S. Africa—Dr. Hendrik F. Verwoerd (Prime Minister).
Italy—Antonio Segni (Prime Minister).
Cuba—Dr. Fidel Castro (Prime Minister).

Sports

I.F.A. Shield, 1958—East Bengal.
Aga Khan Hockey Cup 1958—Northern Railway.

of Fou[illegible] [illegible]inal
dent.
1946
[illegible]ser, **Benoy**
[illegible]S.—born Jan.
t Calcutta and

1. Place of Publication: 14, Bankim Chatterjee Street Calcutta-12
2. Periodicity of its publication: YEARLY.
3. Printer's Name: Supriya Sarkar.
   Nationality: Indian.
   Address: 14, Bankim Chatterjee Street, Calcutta-12.
4. Editors' Name: S. C. Sarkar.
   Nationality: Indian.
   Address: 14, Bankim Chatterjee Street Calcutta-12.
5. Names and address of individuals who own the newspaper and partners of shareholders holding more than one per cent of total capital:

S. C. SARKAR

14, Bankim Chatterjee Street, Calcutta-12.

I, Supriya Sarkar, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Date, 24-2-59.

Sd. Supriya Sarkar.
Signature of Publishers.

INDEX

A

Abbreviations Political 107
Abdications Famous 104
Abyssinia 77
Academy Awards (Cinema) 535
Acts 1958, Central 578
Aden 78
Advertising Directorate 278
Advisory Councils 717
  Laccadive Minicoy & Amindive Islands 717
  Andaman & Nicobar Islands 717
  Pondicherry 717
Aerodromes in India 199
Afghanistan 73
Aga Khan Cup 296
Agricultural Commodities 335
Agricultural Credit Funds 211
Agricultural Machinery 357
Agricultural Policy 332
Agricultural Research 327 236
Agriculture in India 7 325
Aircraft Industry 456
Air Force Indian 382
Airlines Corporation Indian 176
Airline Operations Non Scheduled 179
Airline Route External 178
Airline Routes Internal 178
Air Reserves 383
Air Services Foreign 180
A I R Facts 429
A I R Stations 424
Air Traffic Control 178
Akademi Lalit Kala 527
Akademi Sahitya 524
Akadami Sangit Natak 525
Akali Div 113
Accredited Correspondents 277
Albania 77
Alcohol Industry 467
Alleppy 268
All India Radio 424
Aluminium Industry 465
Andaman & Nicobar Islands 691
Andhra 642
Andorra 77
Animal & Bird Records 74
Animal Husbandry 349
Animal Products 356
Animal of India 8 372
Anthems National 108
Anthropological Dept 510
Anthropology in India 239
Antibiotics Hindustan 458
Antimony 253
Apatite 254
Aquaria & Museums 318
Arab League 109
Arabia 77
Archaeology Dept of 399
Archaeology, Indian 398
Architectural & Historical Land marks 34
Archives of India, National 401, 510
Area & Soil 326
Area of India 1
Argentina 78
Art & Literature in India 524
Asbestos 254
Ascents of Mountains First 58
Assam 644
Assassinations Political 103
Assets & Obligations Int Bearing 222
Asteroids 49
Astronomical Data 47
Athletic Records in India 297
Athletic Records Olympic 307
Atlantic Charter 126
Atmosphere 51
Atomic Energy Dept of 232
Atomic Energy in India 554
Atomic Researches 238
Audio Visual Education 506
Australia 78
Austria 79
Automobile Industry 475
Aviation 310
Aviation in India Civil 174
Aviation Records 310
Awards & Emblems, National 145
Awards Distinction & Titles 147
Awards Honours Prizes 575
  Bharat Ratna 575
  Padma Bhusan 575
  Padma Bhuson 575
  Sahitya Akademi Awards 576
  Rabindra Memorial Prize 576
  Lalit Kala Akademi Prize 576
  Bengali Literary Awards 577
  National Professors 577
  Order of Precedence 577

B

Badminton Championship 297
Bagdad Pact 126
Bahrein Islands 78
Balance of Trade 491 498
Balloons 75
Bandung Conference 126
Banks Indian Scheduled 208
Banks Co operative 207
Banks Exchange 204
Banks Indigenous 208
Banks Land Mortgage 209
Banks Non Scheduled 206
Bank Reserve 199
Bank of India State 201
Barley 335
Barytes 254
Basketball Championship 296
Basic Education 504
Bauxite 251

Delicious
Coca-Cola...
the world's
most popular
refreshment

Serve
Coca-Cola
at home

BOTTLED UNDER AUTHORITY OF THE COCA-COLA COMPANY BY

URE DRINKS (CALCUTTA) PRIVATE
LIMITED

KARNANI ESTATE
209, LOWER CIRCULAR ROAD,
CALCUTTA-17.

Beighton Cup 295
Belgium 79
Bells, Largest 60
Bentonite 252
Beryl 251
Bhadra S S 191
Bharat Electronics 460
Bharat Ratna 19, 675
Bhatkal 269
Bhoodan 488
Bhutan 79 693
Bidri Work 483
Biggest, Largest Longest 62
Bihar 653
Billiard Champions 296
Birds Protection 374

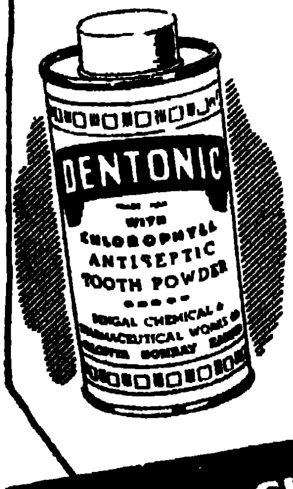
Birth Rates 394
Births & Deaths in India 421
Birth Stones 73
Blue Riband (Atlantic) 75
Bolivia 79
Bombay 265 657
Botanical Survey 2[illegible]9
Botanical Garden National 235
Boxing Champion 305
Brazil 80
Bridges, Indian 15
Bridges Longest 61
British Parliament Indians in 18
British Prime Minister, 101
Broadcasting in India 424
Broadcasting Programmes 125
Broadcasting Stations 424
Buddhist Festival 47
Budget Capital 220
Budgetary Position Govt of India 219
Budgetary Position States 224
Buildings & Towers Tall 60
Bulgaria 80
Burma 80

C

Cables Hindustan 458
Calcutta 266
Calicut 268
Calendar The 38
Calendar Indian 38
Cambodia 80
Canada 80
Canals of India 438
Canals, Ship 55
Cancer 417
Capital Account 219
Capital Gain, Tax 591
Caradamom 339
Cargos Handled by Ports 262
Cargo Vessels, Indian 189
Carpets 471
Cashewnuts 336
Castor 341
Cattle Show, All India 351
Cattle, Species of 351
Cattle Trade 356
Caves & Caverns, Famous 55
Cement 251, 471
Census, Indian 392

It is NEW!

The Famous
DENTONIC
ANTISEPTIC
Tooth Powder
Is now available with
CHLOROPHYLL



The wonder germicide and deodoriser

Protects gums, brightens teeth and sweetens breath.

BENGAL CHEMICAL
CALCUTTA BOMBAY
KANPUR

,There is enduring companionship where tastes are similar. Like cycling, for example

COMPANIONSHIP

Tastes always meet when it comes to a Raleigh, for this bicycle, distinguished by its attractive finish and graceful proportions, will go along with you for years and years... never failing you and never complaining

RALEIGH

The World's Most Famous Bicycle

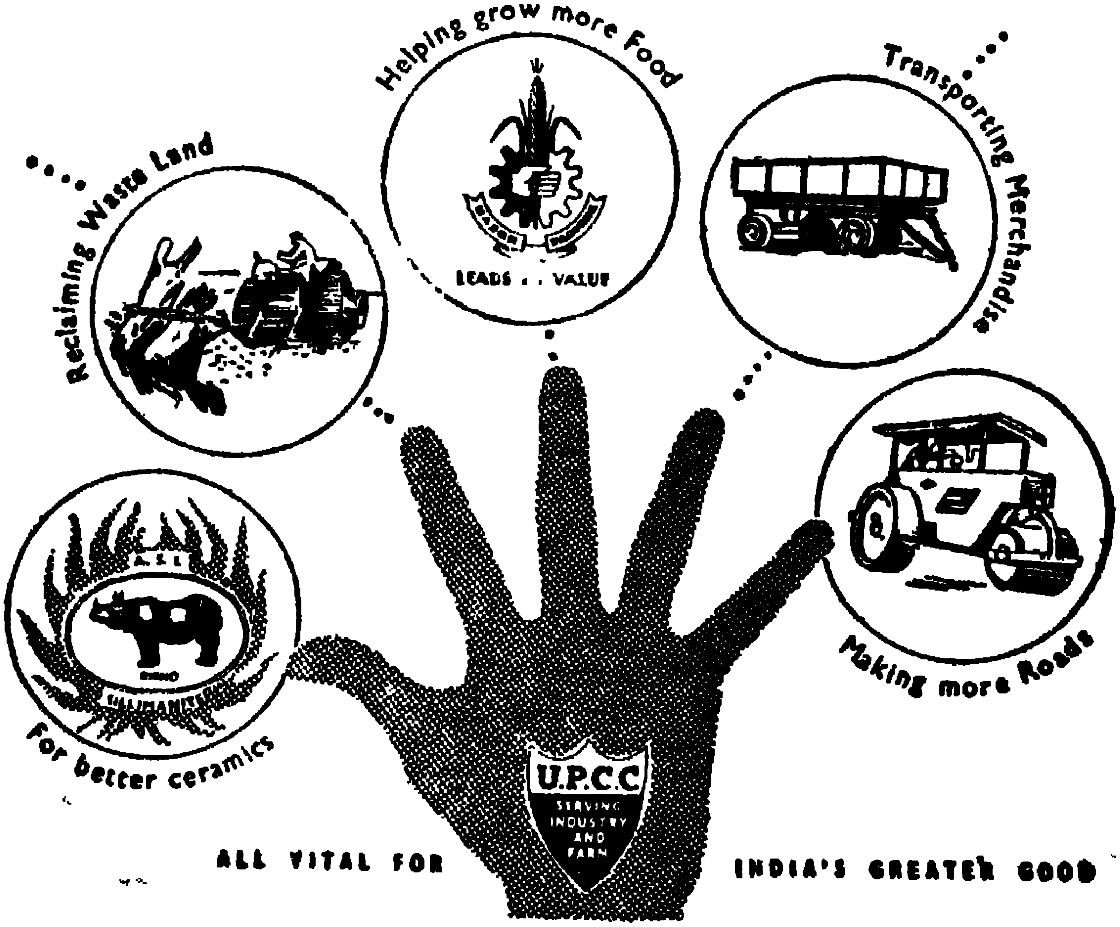
SRC-59

Central African Federation . 81
Central Board of Geophysics 237
Central Labour Institute . 324
Ceramic & Glass Research 234
Central Acts 578
Ceylon 81
Chess Champions 305
Chile 81
China 81
Chittaranjan Locomotive Works 457
Christian Festival 45
Chromite 251
Chronology Indian 21
Cinchona 338
Cinema in India 528
  Censorship of films 531
  State awards for films . 532
  Ind feature films 533
  Import of Cinema films 534
  Cinema Circuits 534
  Facts of Cinema in India 534
  Academy Awards 535
Cinema Circuits 534
Cities of India 14
Cities Biggest 57
Citizenship Indian 143
Climate & Rainfall 1
Chairman of Legislative Councils 708
Climate World Extremes of 57
Cloves 339
Coach Factory, Integral 457
Coal 246 464
Coal Corporation, National 465
Cocanada 269
Cochin 266
Coconut . 342
Coffee 338 451
Coir 477
Colombia . 82
Colombo Plan 126, 599
Colours & Names of Flags 107
Comets 49
Commerce India's 491
Cominform 127
Commissions & Committees 572
Commissioners, High (See under 'Representatives')
Commodity Committees 329
Commonwealth of Nations 116
Communication & Transport 151
Community Development Projects 550
Community Broadcasts 426
Communist Countries 109
Congress Presidents, Indian National 21
Congress, U S Indian member of 19
Constellations . 50
Constitution, Amendments to the Indian 139
Constitution of India 132
Continents, Area of the 52
Copper 252
Corundum . 253
Co-ordination of Transport 153
Costa Rica 82
Cottage & Small Scale Industries 480
Cottage Industry, Products 483
Cottage Industries State .. 484
Cotton 339
Cottonseed 342
Country Craft 191
Cricket Indian 290
Cricket Official Test Matches 291
Cricket Test Record of India 292
Crops Plantation 337
Cuba 82
Cycle Industry . 467
Czechoslovakia 82

D

Dairy Education 369
Dairy Farming 369
Dams Highest & Largest 55
Date Line International 44
Davis Cup 304
Days Longest & Shortest 44
Days National 106
Defence Forces 703
D D T Factories 459
Death Rates 394
Debt Position Govt of India 228
Debt Public 221
Decorations & Medals 76
Defence Academy National 383
Defence National 377
Defence Organisations 377
  Army 381
  Navy 381
  Air Force 382
Defence Services Staff College 384
Democratic Republic Sovereign 132
Delhi 683
Denmark 83
Depths & Heights 75
Deserts 53
Dhanuskadi . 269
Directory, Indian 699
  Govt of India 699
  Central Ministry 699
  Secretaries 701
  Defence Forces 703
  Tariff Commissions 705
  Supreme Court of India 705
  Atomic Energy Commission 705
  Finance Commission 705
  Election Commission .. 706
  Law Commission . 706
  Copyright Board 706
  Univ Grants Commission 706
  Ry Board 706
  General Managers, Railways 706
  U P S C 707
  Planning Commission 707
  Important Posts 707
  State Governors 707
  Rulers of Territories 708
  Speakers, Legislative Assemblies 708
  Chairmen Legislative Councils 708
Diseases Tropical 416
Discoveries & Inventions 67
Discoveries in Medicine & Physiology 67
Displaced Persons, Rehabilitation of 409
Dog Days 45
Dominican Republic 83
Drug Research Lab Central 286
D V C 439

IN 5 WAYS
UPCC
are contributing to the
SECOND 5 YEAR PLAN



ALL VITAL FOR INDIA'S GREATER GOOD

THE UNITED PROVINCES COMMERCIAL CORPORATION
6, Ganesh Chandra Avenue, Calcutta-13

PPS/UP-108/68.

E

Earth, The 48
Educational & Vocational Organisations 510
Educational System in India 503
Education All India Council for Secondary 505
Education Central Advisory Board of 509
Education Scientific Research & Cultural Affairs 502
Education Medical 412
Education Secondary 505
Education of the Handicapped 508
Education and Scientific Research 231
Estate Duty 591
Expenditure tax 592
Egypt 83
Elections Indian 564
Electoral College 118
Electricity in India 492
Electrical Heavy 461
Electric Energy Generated & Sold 434
Electric Supply under Plans 434
Electrification of Railways 157
El Salvador 83
Emblems National 146
Employment Service National [illegible]
Engineering Research 235
Ecuador 83
Everest Attempts on 16
Explosives Factory 459

F

Factories Act 313
Falangist 110
Family Planning in India 562
Federation of Rhodesia & Nayasaland 94
Feldspar 251
Fertilizer Industry 456
Festivals Hindu 44
Festivals Moslem 46
Fibres 339
Field Events 302
Field & Track Records 307
Filigree 483
Film Advisory Board 531
Film Enquiry Committees 529
Film Festival Cannes 536
Film Festival West Berlin 537
Film Festival Vancouver 537
Film Festival Venice 537
Films Censorship of 531
Films, Children's 531
Films Division 279, 530
Films Awards State 536
Finance Commissions 216
Finance Commission 705
Finance Corporation, Industrial 197
Finance Corporation State 198
Finance, Public 215
Finance, Railway 163
Finland 84
First among Indians 26
First Beginnings in India 26
First in India 25
Fishery in India 344
Fishes Varieties of 345
Fishing Estuarine etc 345
Fishing Industry 345
Fishing Sea 345
Fish Catch Total 19
Fish Products 346
Five Year Plans 547
Five Year Plan First [illegible]
Five Year Plan, Second 548
Flag National [illegible]
Flags Names & Colours of 107
Flags of Countries 104
Flags Other 106
Fleet of Aircrafts 178
Flights & Jumps Record 76
Flood Control 436
Flowers National & State 76
Flying Clubs 177
Food & Nutrition 422
Food Crops 335
Food Technological Research 284
Football Championship National 295
Football Durand Cup 294
  I F A Shield 294
  Rover's Cup 294
Foreign Capital 456
Foreign Diplomats in India
Foreign Exchange Reserves 497
Foreign Trade 492
Forests Classification of 9, 359
  Produces & Uses 363
  Research & Education 362
Forestry, Central Board of 94
Formosa 94
France 84
France Rulers of since W War II 102
Fuller's Earth 253
Fundamental Rights 132

G

Game Sanctuaries & National 16
Game Sanctuaries & National Parks 16
GATT 128
Gazetteer World 59
Geological Survey 240
General Information 69
Geneva Convention 119
Genocide Convention 129

Gelogical Survey of India 240
Gegraphical Information 52
Geographical Record Breakers 56
Geographical Surnames 54
Germany 85
Gestation of Various Animals, Periods of 74
Ghana 85
Ghee 369
Glass & Ceramic Research Inst 2[illegible]4
Glass & Glassware 473
Gold 248
Governor's State 708
Govt of India Directory 699
Governments, State 135

LATEST BOOKS

S. C. SARKAR'S BOOK OF GENERAL KNOWLEDGE

The only up-to-date and authoritative book on General Knowledge.

22nd Ed. 1959 Rs. 3.50

S. C. SARKAR'S GENERAL KNOWLEDGE GEOGRAPHY

Thoroughly revised and considerably enlarged.

4th Ed. 1959 Rs. 2.50

S. C. SARKAR'S SUMMARY OF THE INDIAN CONSTITUTION

Thoroughly revised edition incorporating all the amendments of the Constitution.

4th Ed. Rs. 1.00

P. K. SEN'S PRESS, PUBLICATION AND COPYRIGHT LAWS OF INDIA

The book contains all the relevant Acts passed in recent years regarding the Press, Publication and Copyright Laws in India with notes and rules thereunder and also International Copyright Convention.

Demy 8 vo. Rs. 3.50

STORIES FROM MODERN BENGAL BROKEN BREAD

Done into English by Lila Ray

A representative collection of twentyone selected Bengali Short Stories from Tagore to the latest short story writers of Bengal.

Demy 8 vo. Rs. 7.00

GANDHIAN CONCEPT OF STATE

Edited by Dr. B. B. Majumdar

The book contains nine papers on different aspects of Mahatma Gandhi's concept of State by nine distinguished Indian teachers of political science.

Demy 8 vo. Rs. 7.00

SIR J. N. SARKAR'S HISTORICAL WORKS

Fall of Mughal Empire (4 vols.)	**40.00**
Short History of Aurangzeb	**10.00**
Mughal Administration	**5.00**
India through the Ages	**2.50**
Anecdotes of Aurangzeb	**2.50**

DR. KALIDAS NAG'S

India & the Middle East	**3.00**
Discovery of Asia	**30.00**

M. C. SARKAR & SONS PRIVATE LTD.
14, Bankim Chatterjee Street, Calcutta-12

Governor-Generals of Indian Union 20
Gramdan 489
Gram & Pulses 336
Graphite 258
Greenwich Mean Time 48
Grow more Food Campaign 332
Gt Britain & Northern Ireland 85
Greece 86
Ground-nut 341
Guatemala 86
Gypsum 252

H

Haiti 86
Handlooms & Textiles 481, 484
Harbour Board National 268
Heads of Govts of the World 99
Health Board of Central Advisory 414
Health Central Council of 414
Health Education Bureau 412, 416
Health & Medical Education 412
Health Ministry of 411
Health Public 410
Heavy Electricals 461
Hemp 339
Hides Leather & Skins 468
Highest Mountain Peaks 52
Highest Peaks of Himalayas 16
Hill Stations 15, 27
Himachal Pradesh 686
Himalayan Peaks Conquest of 17
Hindustan Antibiotics Pimpri 458
Hindustan Cables Ltd 458
Hindustan Housing Factory 458
Hindustan Machine Tools Factory 458
Hindustan Salt Factory 461
Hindustan Shipyard 459
Hockey Championship National 295
Hockey Championship Women's 296
Hockey Tournament Dhyan Chand 296
Holidays 44
Homoeopathy & Indigenous Systems 413
Honduras 86
Horned Articles 483
Homanistic Institutions 522
Hurdle Records 302
Hydro Power Resources of India 433

I

Iceland 86
Ilmenite 250
IMCO 261
Import & Export Control 498
Income National 386
India 86
India (Map) 641
India at a Glance 1
India in World Affairs 640(j)
India in World Economy 595
India River Systems 3
Soil 2
India Govt Trade Representatives 733
Indian Affairs 640(c)
Indian Facts 10
Indian Fellows of Royal Society 18
Indian National Congress 111
Indians Village 368
Indian Representatives Abroad 728
Indians, First among 26
Indians in Commonwealth Countries 391
Indians in Foreign Countries 392
Indians Notable 24
Indonesia 87
Indians Overseas 389 391
Industrial Policy, Govt 452
Industrial Production, Index of 478
Industrial Research, Council of Scientific 232 273
Industrial Relations and Disputes 318, 325
Industrial Estates 455
Industries, Development & Control of 454, 453
Industries, Nationalized 456
Industry, Indian 450
Information & Publicity 276
Information Services, Foreign 280
Information Services Indian 276
Insecticides 459
Instruments Factory, National 457
Insurance in India 447
Insurance Nationalization of 446
Integral Coach Factory, Perambur 457
International Affairs 618
International Civil Aviation Org 260
International Court of Justice 259
International Labour Org 259
International Monetary Fund 260
International Organisations 108
International Red Cross 120
Inventions, Great 68
Iran 87
Iraq 88
Ireland 86
Iron 249
Iron & Steel 462
Iron & Steel Products 460
Irrigation, Indian 435
Irrigation, Main Types of 437
Irrigation Principal Projects 439, 445 446
Islands Largest 83
Israel 87
Italy 88
ITO 262
ITU 261
Ivory Work 483

J

Jammu & Kashmir 486
Japan 88
Jordan 89
Journalism Courses 287
Judiciary 185
Jute 339, 464

K

Kalinga Prize 73
Kanchanjunga, Attempts on 17
Kandla 264
Karikal 269
Kerala 487, 680
Korea 89
Kumintang 109

Kawait .. 78
Kayanite .. 251

L

Labour Welfare Funds .. 316
Laboratories, Medical Researches .. 419
Laboratory, National Chemical .. 233
Laboratory, Nat. Physical .. 233
Labour Administration .. 320
Labour in India .. 312
Labour Laws .. 318
Labour Reform .. 312
Lac 340, 477
Laccadive, Minicoy & Amindivi Ils 690
Legislative Assemblies of States .. 560
Lakes .. 53
Lalit Kala Akademi .. 527
Land Reforms in India .. 538
Language, Official .. 139
Languages 3. 402
Languages in the Constitution .. 404
Languages, Indian .. 403
Laos .. 89
Law Commission .. 706
Lawn Tennis Championships .. 304
Lead .. 253
Leather, Hides & Skins .. 468
Leather Research Inst., Central .. 234
Lebanon .. 89
Legislature .. 684
Lemon grass .. 340
Lenin Peace Prize .. 19
Liberia .. 90
Libya .. 90
Liechtenstein .. 90
Lignite . 248
Limestone .. 252
Linseed .. 341
Literacy in India .. 397
Livestock & Foultry, Census .. 357
Livestock and the Constitution .. 350
Livestock, Division of .. 356
Locomotive Productions .. 157
Lok Sabha .. 718
  Speaker .. 718
  Dy. Speaker .. 718
  Members .. 718
Loans, Central Government .. 223
Loans, State Govts. .. 225
Longest Ry. Station Platforms .. 59
Luxemburg .. 90

M

Machine Tools Prototype Factory 459
Madhya Pradesh .. 486
Madras .. 486, 265
Magnesite .. 251
Mail, Night . 178
Malaria (See under "Public Health") .. 420
Malaya, Federation of .. 91
Malpe .. 269
Map of India .. 641
Mangalore .. 268
Manganese .. 247
Manipur .. 486
Marine Engineering College 194
Maritime Trade .. 191
Masqat & Oman .. 78
Match .. 473
Medical Education .. 473
Medical Education 412, 423
Medical Research 235, 415, 419
Medicine & Physiology .. 67
Mercantile Marine .. 189
Merchant Shipping 200, 191
Metal Art Wares .. 484
Metallurgical Laboratories .. 234
Meteors 49
Metric Systems (new) .. 590
Mexico .. 91
Mica .. 248
Mile Runners .. 301
Military Chiefs of India .. 20
Milk Production .. 367
Milky Way .. 51
Millets .. 335
Mineral Information Bureau .. 244
Mineral Oils in India .. 558
Mineral Resources (MAP) .. 242
Minerals, Description of .. 7
Minerals, Indian .. 242
Mines .. 245
Mines Acts .. 314
Ministries, Indian .. 587
Ministries, States .. 709
  Andhra Pradesh .. 709
  Assam .. 709
  Kerala .. 711
  Bombay .. 710
  Jammu & Kashmir .. 711
  Bihar 712
  Madras .. 713
  Madhya Pradesh .. 713
  Mysore 714
  Orissa .. 714
  Punjab .. 715
  Rajasthan .. 715
  U. P. .. 716
  West Bengal .. 716
Mines & Mineral Conservation .. 244
Mining & Metallurgy, College of .. 245
Monaco .. 91
Monazite .. 250
Mongolia, Outer (Mongolian People's Republic) .. 91
Months, Names of .. 41
Moon, The .. 48
Morocco .. 91
Motor Vehicles Act .. 171
Mountain Passes .. 55
Mountain Peaks, Highest .. 52
Museums in India .. 511
Mustard & Rape 342, 576
Myrobalans .. 340
Mysore (Flagship) .. 382

N

Naga Hills-Tuensang Area .. 648
NEFA .. 647
Nagpur Plan .. 167
Nahan Foundary .. 458
Names of Places, Old & New .. 18
Names of Months . 41

National Days .. 111
National Archives of India .. 510
National Atlas Organisation .. 237
National Employment Service .. 323
National Income .. 658
National Instruments .. 457
Nationalised Industries . 456
National Laboratories .. 233
Nationalization of Transport .. 179
National Parks . 16
National Parks & Sanctuaries .. 374
National Research Development Corporation 236
National Extension Service . 553
National Songs .. 146
NATO .. 130
Natutical & Engineering College 194
Navy, Indian .. 381
Negapatam 269
Nepal 91
Netherlands .. 92
News Agencies, Foreign .. 274
News Agencies, Indian .. 273
Newspaper Association . 275
Newspaper Circulation, Indian 288
Newspapers, Important Indian ..281
New Zealand .. 92
Nicaragua 92
Nobel Prizes .. 69
Nobel Prize Winners, Indian . 19
North Vietnam .. 98
Norway 92
Notable Indians . 24
Nuclear Research .. 238

O

Oceans & Seas 52
Orches .. 250
Oilseeds . 341
Okha .. 268
Olympic Hockey Champions . 306
Oman & Masqat . 78
Opium, Control of .. 51
Orissa . 666
Oscars (Oscar Awards) .. 635
Overseas Shipping .. 192
Overseas, Indians 389, 391
Outside Assistance . 598

P

Padma Bhusan, .. 575
Padma Bibhushan .. 575
Padma Shri .. 575
Pakistan 92, 698
Panch Shila .. 121
Panama .. 93
Paper & Paperboards .. 468
Paraguay .. 93
Param Vir Chakra 20
Parliament, Indian . 20
Parliament, Powers & Privileges of 134
Pearl Oysters .. 348
Peer of the British Realm, Indian 19
Pepper .. 339
Peru .. 93
Petroleum . 249
Petroleum Industry . 469
Philippines 93
Phulkari . 493
Places of Interest .. 30
Planets .. 43
Plans, Five-year (See Five year Plans) 547
Plans, Treaties, Alliances, etc. . 125
Plantation Labour Laws 314
Playwood Industry .. 478
Poland .. 93
Polar Auroras .. 51
Polar Records 56
Political Abbreviations .. 107
Political Information .. 99
Political Parties & Groups .. 109
Parliament, Indian .. 587
Progress of Science .. 614
Political Parties, Indian .. 111
Political Terms .. 113
Pondicherry .. 269
Poppy . 338
Population, Rural and Urban .. 393
Population according to Religion 393
Population Control .. 394
Population Density .. 10
Population, Growth of .. 393
Ports, Administration of .. 263
Ports, Indian 4, 262
Ports, Major and Minor .. 263
Portugal .. 93
Portuguese India .. 697
Postage Stamps since Independence 188
Postal Education .. 184
Postal Landmarks .. 187
Postal System .. 181
Posts & Telegraphs .. 181
Pottery .. 472
Poultry .. 355
Poultry, Census .. 357
Power & Irrigation Projects 439, 445, 446
Power Development in India 433, 434
Power Supply, India's .. 430
Precedence of Persons .. 149
Precious Stones .. 254
President, Indian Union .. 20
Presidents of the U. S. A. .. 101
Press Associations 275, 287
Press Commission's Report .. 274
Press Council .. 274
Press, Freedom of the .. 271
Press, Indian .. 271
Press Information Bureau .. 276
Press Laws 272
Press Union, Commonweath .. 276
Prime Ministers, British .. 101
Privy Councillors, Indian .. 19
Prohibition in India .. 499
Projects, Some Principal (Irrigation) 439
Publications Division .. 277
Public Debt .. 221
Public Health .. 410
Public Services in India .. 542
Public Service Commission .. 542
Punjab .. 668
Pyrites .. 253

Q

Quilon 269

R

Rabindra Memorial Prize 576
Race, Indian 5
Radio Receiver Sets Number of 429
Railway Amenities 162
Railway Fare & Freight 156
Railway Committees 158
Railway Dates important 165
Railway Facts 168
Railway Finance 155, 163
Railway Organisations 160
Railway Training Centres 157
Railway Zones 158
Railways Administration of 151
Railways Electrifications of 157
Railways in India 151
Railways Non-Govt 162
Rajasthan 673
Railway Board (members) 706
Railways (India) General Manager 706
Rajya Sabha 725
  Chairman 725
  Dy Chairman 725
  Members 725
Ranji Trophy 292
Rank & Precedence 149
Rayon Industry 469
Refugees in India 408
Registrar of Newspapers 280
Rehabilitation of Displaced Persons
Research Organisation 241
Reserve Bank of India
  Assets & Liabilities 200
  Banking Dept 201
Revenue and Expenditure Account 220
Rice 335
Rivers Famous 52
River Valley Projects 436
Road Administration 167
Road Fund Central 167
Road Research Inst Central 170
Roads Congress Indian 169
Roads in India 165
Road Transport 170
Ropeways 172
Rubber 339, 472
Rumania 94
Rulers of Territories 708

S

Safety and Welfare Acts 315
Sahitya Akademi 524
Salaries Heads of Govts 102
Salt 250
Saltpetre 250
Salvador El 83
Sangit Natak Akademi 525
Sangit Natak Akadami (Awards)
San Marino 94
Santosh Memorial Trophy 295
Satellites 50
Saurashtra Ports 268
Science International Contracts in 240
Scientific Research & Cultural Affairs 509
Scientific Documentation Centre 257
Scientific Progress 230
Scientific Research Insts & Laboratories 232, 520
SEATO 181
Security Council—U N 258
Sesamum 342
Ship Building 195
Scheduled Castes & Tribes in India 609
Shipping Act 191
Shipping Control Department 195
Shipping Corporation Eastern 458
Shipping Indian 189
Ships, Largest 75
Sikkim 692
Silk 340
Silk Industry 470
Sillimanite 258
Silver Refinery Project 480
Small Savings 221
Snakes Poisonous 8
Soap 474
Social Education 515
Social Security Acts 317
Soil Conservation 244
Soil of India 326
Solar System 47
South Africa 94
Spain 94
Spans of Bridges Largest 61
Speakers of Legislative Assemblies 708
Speeds 74
Spices 336
Sports Goods 477
Sports Section 290
Sputniks (Earth Satellites
Statistics Indian 593
Standard Time Indian 43
Stars 50
State Governors
State Trading Corporation 455
States in India 642
  Andhra Pradesh 642
  Assam 644
  West Bengal 649
  Bihar 653
  Bombay 657
  Madhya Pradesh 660
  Madras 663
  Orissa 666
  Punjab 668
  Uttar Pradesh 671
  Rajasthan 673
  Jammu & Kashmir 676
  Mysore 677
  Kerala 680
  Delhi 683
  Pondicherry 684
  Himachal Pradesh 686
  Manipur 688
  Tripura
  Laccadive Minicoy, & Amindivi Islands 689
  Andaman & Nicobor Islands 691
States Judiciary 186
States Bordering India
  Nepal 694
  Tibet 696
  Portuguese India 697
  Pakistan 698

States with special relation with India
  Sikkim 692
  Bhutan 693
Statistical Research 236
Steatite 252
Steel Projects 460
Stones & Planetary Actions 73
Stones, Precious 254
Structures Highest Indian 17
Sudan 95
Sugar 465
Sugarcane 340
Sulphur 252
Sun, The 48
Supreme Court of India 705
Surat 268
Survey of India 239
Sweden 95
Swimming Records 298, 303
Switzerland 95
Syria 95

T

Tanker Fleet 195
Tankers Largest 75
Tariff Commission 451 495, 705
Tea 338, 474
Telegraph Service 184
Technical Education 515
Telephone 184
Telescopes Notable 60
Textiles Industry 462
Thailand 96
Theories 68
Tibet 696
Time
  Measurement of Time 42
  Difference of Time 43
Time Indian Standard 44
Titanium 253
Tobacco 337, 476
Track & Field Records 301
Trade and Commerce 139
Trade Unionism in India 322
Trade Representatives of Overseas Governments 738
Training Insts (National Defence) 383
Transport Inland Water 172
Transport & Communications 151
Treasury Bills (Govt of India) 222
Trieste 96
Tripura 689
Tungsten 252
Tunesia 96
Tunnels Famous 54
Turkey 96
Tuticorin 267

U

United Kingdom 96
Union Executive 133
Union Public Service Commission 707
United Nations 256
U N Economic & Social Council 258
  Educational Scientific & Cultural Organisation 260
  Flag 257
  Food & Agricultural Organ 259
  General Assembly 257
  Inf Centre in India 262
  International Labour Org 259
  Members 256
  Organs 257
  Secretariat 259
  Security Council 258
  Specialised Agencies 259
  Trusteeship Council 258
United States of America 97
United States of America, Presidents of the 101
Universal Postal Union (UPU) 261
Universities of India 518
University Education 507
University Commission 508
University Grants Commission 706
UNICEF 131
Uranium-Thorium Factory 461
Uruguay 98
U S S R 97
Uttar Pradesh 749
Useful Information 590
  New Metric System 590
  Capital Gains tax 591
  Estate Duty 591
  Wealth tax 592
  Expenditure tax 592
  Gift tax 593

V

Vanadium 253
Vanaspati 478
Vanishing Animals 372
Vatican City 98
Venezuela 98
Vietnam 98
Vice-Chancellors of Universities 517
Vice President of India 20
Village & Small Scale Industries
Visakhapatnam 267
Volcanoes 58
Vigyan Mandirs 238
Vividh Bharati AIR 426
Villege Indian 568

W

Walking Records 302
Water Transport Inland 172
West Bengal 649
Wealth Tax 522
Wheat 335
Who's Who 741
Wightman Cup 304
Wild Life 370
Wild Life Preservation 371
Wimbledon Tennis Championship 304
Wool & Woollen Textiles 471
World Health Organisation (WHO) 261
World Meteorological Organisation 261

Y

Year 42
Yemen 78
Yugoslavia 9

Z

Zinc 251
Zircon 251
Zoological Gardens 377
Zoological Survey 239

Quality & Choicest
Ornaments

LAKSHMI BROTHERS
Jewellers

PHONE • 46-3626

• *Branch* •
208/8, RASHBEHARI AVENUE, CALCUTTA-29
• *HEAD OFFICE* •
1, HINDUSTHAN MART • BALLYGANJ • CAL – 29